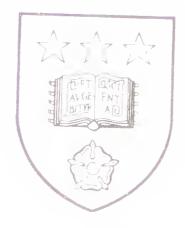


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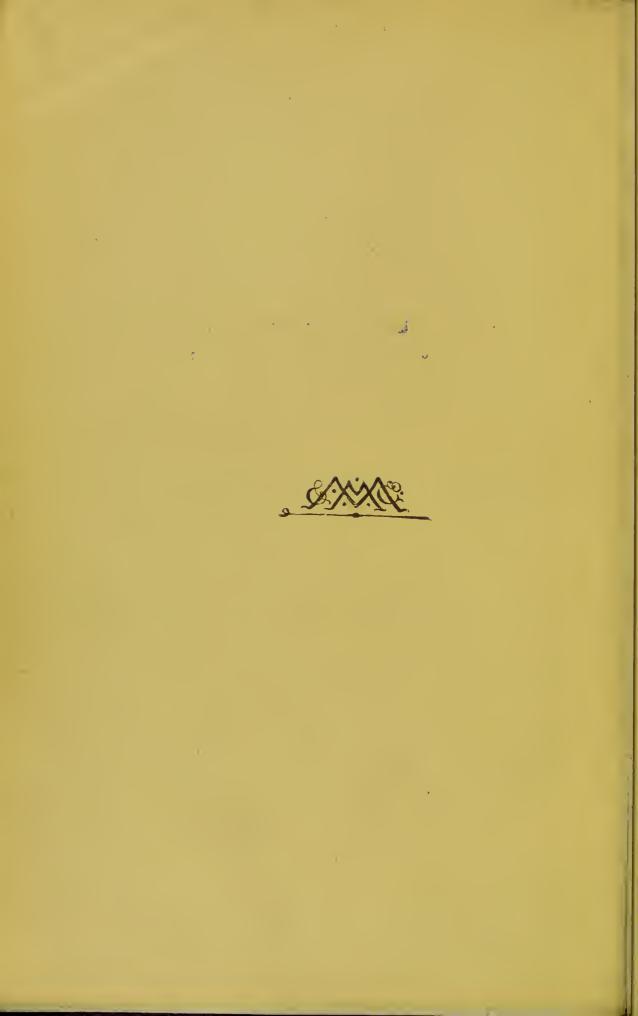


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TABLES OF MATERIA MEDICA



TABLES OF MATERIA MEDICA

A COMPANION

TO

THE MATERIA MEDICA MUSEUM

*ELDS & WEST-RIDING
MEDICO-OFF ROICAL SCOIETY

BY

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EXAMINER IN MATERIA MEDICA IN THE UNIVERSITY OF LONDON, LATE EXAMINER IN MATERIA MEDICA IN THE UNIVERSITY OF EDINBURGH AND THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

NEW EDITION

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INTRODUCTION.

THE OBJECT of these Tables is twofold. They are intended, firstly, to recall to the student's mind what he has learned from larger text-books; and, secondly, to help him to arrange the material he has acquired in a convenient order. One of the great difficulties with which a student has to contend in the study of Materia Medica is that he has to learn so many isolated facts, each of which seems to stand entirely by itself, without any connection with others. He therefore finds it very hard to remember them; whereas his task would be materially lightened if they were so arranged as to show him their mutual dependence. An attempt has been made to do this, both in the arrangement of the articles in the Pharmacopœia, and the order in which the properties of each article are considered. For example, instead of taking the acids in alphabetical order, and beginning with acetic acid, sulphuric acid is considered first, because it is used in the preparation of all the other acids, and thus comes to be present in them as an impurity, besides conveying into them the impurities, such as arsenic, contained in itself, or contaminating them by sulphurous acid, the product of its decomposition. For a similar reason the oxides of a metal are not considered first, and its salts afterwards, but we begin with that compound from which the others are prepared. Thus, instead of taking magnesia first, then the carbonate, and lastly the sulphate, we take the sulphate first, because that is prepared from crude dolomite, or native carbonate of magnesia and lime; next the carbonate, which is prepared from the sulphate by precipitating with carbonate of soda; and lastly, magnesia, which

is prepared from the carbonate by calcining it. When the student begins with magnesia, he learns tests which indicate that it should contain no carbonate, sulphate, or lime, but he does not know why these tests are used. If, on the other hand, he begins with the sulphate, he learns that it may readily contain lime because it is prepared from a carbonate of lime and magnesia, the carbonate if imperfectly prepared may contain some sulphate, as well as the lime present in it, and magnesia in its turn may contain carbonate along with all its impurities.

The order in which the properties of each article are taken is this. The student is supposed to use the tables in the Materia Medica museum, and in studying the specimens he first learns the NAME of each drug, the SOURCE whence it is derived, and the MODE OF PREPARATION. He then looks at it as it stands upon the shelf, and notes its

He then takes it in his hand and notes its WEIGHT,

and, if he wishes to be more explicit, may look up its specific gravity.

He applies it to his nose and mouth, and observes its SMELL.

Sweet. Acid. Bitter. Pungent. Mawkish. Astringent.

AFFINITY FOR WATER Deliquescent. Efflorescent.

He next puts it in a vessel and ascertains the

Fusible. . {Volatile. EFFECT OF HEAT (Fixed. SOLUBILITY IN .

He next applies reagents to discover its character.

Reactions $\begin{cases} \text{Generic, to discover the metal contained in a salt, } \textit{e.g.} \\ \text{magnesium.} \\ \text{Specific, to discover the nature of the salt, } \textit{e.g.}, \text{sulphate.} \end{cases}$

He next considers what impurities are likely to be present, whence they came, and applies tests for them.

> Materials employed in manufacture, and not removed from the finished product, e.g. carbonate remaining in calcined magnesia. This is indicated in the Tables by the term Imperfect Preparation.

Impurities contained in the materials themselves.

Impurities produced by alterations in the materials during manufacture, e.g. sulphate of soda in the manufacture of carbonate of magnesia.

IMPURITIES Impurities derived from the apparatus used in the manufacturé.

Alterations by exposure to air or moisture &c.

Fraudulent additions.

In the Tables of Organic Materia Medica the adulterations are less frequently mentioned, but those articles of the Materia Medica are enumerated which are most likely to be confounded with any drug by a student undergoing a practical examination.

He next learns its physiological actions. These are most conveniently learned by following a certain order, and considering the effect of the drug, first in small, secondly in large, and thirdly in long-continued doses, when applied to the

Conjunctiva. Mucous membrane of ear. nose. Continuations of skin, passbronchi. ing from above downwards urethra. vagina. rectum.

Then its action when taken into the digestive canal, and passing along it upon the

Mouth—Salivary Glands.

GULLET.

STOMACH.

GLANDS connected with the intestine { Liver. Pancreas.

In the Tables the physiological action and uses are treated in the most meagre way, but they will be more fully considered in the Text-book which the author hopes to issue shortly.

Next, after being absorbed from the intestinal canal into the circulation, its action on the

BLOOD.

BLOOD-VESSELS—Vasomotor Nerves.

HEART—Cardiac Nerves.

NERVOUS SYSTEM Brain.

Medulla.
Spinal Cord.
Motor Nerves.
Sensory Nerves.

MUSCLES.

Then its passage out of the body and its action on the eliminating glands:

LIVER-Increase of Bile.

PANCREAS.

INTESTINE . . { Movements. Astringent. Secretion. Purgative.

KIDNEYS.

BLADDER.

URETHRA.

Here also is the most convenient place to consider its action on the genital apparatus:

UTERUS. TESTES.

L US & WEST-RIDI C

Next come the

& CICYT ELA

DISEASES IN WHICH THE DRUG IS USED.

In order to prevent omissions, the student should run over in his own mind all the various parts of the body already enumerated, and in the same order, considering whether any of them are subject to diseases in which the drug may be employed.

Next come the

OFFICINAL PREPARATIONS.

If the student knows the action and use of the various remedies he will find the officinal preparations less trouble-some to remember if he considers that these preparations are neither more nor less than the most convenient forms in which to apply various remedies.

Thus, if the drug is to act on the skin or mucous membranes, there will not improbably be a

Liquor, or Unguentum.

If it is to act on the tissues below the skin there may

LINIMENTUM.

EMPLASTRUM.

CATAPLASMA.

If on the mucous membrane of the bronchi a

VAPOR.

If on the mucous membrane of the mouth or throat there may be a

MEL,

GLYCERINUM, or

TROCHISCUS.

If for internal use

PULVIS.

CONFECTIO.

MISTURA.

PILULA.

DECOCTUM.

INFUSUM.

TINCTURA.

And if it is likely to be wanted for frequent use by persons suffering from coughs, dyspepsia, or diarrhea, but nevertheless engaged in their usual avocations, so that they cannot conveniently carry mixtures about with them, there will be a

TROCHISCUS.

If its local action on the rectum is desirable, there may be an

ENEMA, or Suppositorium.

Lastly come the

Doses.

INCOMPATIBLES.

MODE OF ADMINISTRATION.

In the preparation of these Tables the author has been largely indebted to the following works:—Attfield's 'Pharmaceutical Chemistry;' Garrod's 'Materia Medica,' edited by Baxter; Hanbury and Flückiger's 'Pharmacographia;' Smith's 'Commentary on the British Pharmacopæia;' and Harvey and Davidson's 'Syllabus of Materia Medica,' from which the relative values of the drugs have been almost entirely taken.

Whilst the book was passing through the press, the advisability of giving the English names along with the Latin ones became evident, and they have therefore been given in the latter part of the work. As the first sheets were already thrown off, it was impossible to insert the English names in the inorganic part, but fortunately the necessity for them in that part is comparatively small.

The doses have been partly taken from the 'British Pharmacopæia' and partly from Garrod's work. The articles which are only used for testing have been omitted purposely. Bromine and Pil. Phosphori have been accidentally omitted from their proper place and are to be found at p. 198.

The importance of the various drugs is indicated by the type in which their names are printed. The most important are printed in thick capitals, the next less in importance in large thin capitals, the less important in small capitals, and the least important in ordinary type. The most important preparations are marked with two asterisks, the less important with one.

In the preparation of various substances, such as tinctures, &c., the quantities used have been given because the student may wish to look at them, but by no means because the author thinks that they ought to be learned. Such an idea is very far removed, indeed, from his mind, for his object in compiling these Tables was to lessen the labours of overworked students, and, if this end be attained, he will feel repaid for the weary mechanical work involved in their preparation—work which would have been both longer and wearier, if it had not been for the kind co-operation of a friend whom he takes this opportunity of thanking.

Since the first edition of this book was published it has occurred to the author that the students' labours would be still further eased by a list of the substances most likely to be confounded together, with the means of distinguishing them, and figures of the more important substances in the organic materia medica. These have accordingly been added, and the author has to acknowledge his obligation to Mr. Soutter for the assistance he has obtained from the excellent notes which this gentleman has taken of his lectures.

For some time he has given papers containing questions on Materia Medica to the students attending his lectures, and it has appeared to him that they were thus enabled to find out more easily what they knew and what they did not know, and consequently to supply their deficiencies. In the hope that such questions may be generally useful he has added them also.

ROOTS.

For the purpose of recognition, roots may be divided either by their kind or by their size.

The root or descending axis of a plant varies much in form. The three principal kinds are:

1st. The branching roots, such as those of trees or shrubs. Examples of these are:

SASSAFRAS.
RIIATANY (Krameria).

2nd. The tap root, which penetrates downwards to some depth without dividing; it is conical or fusiform, sometimes so much elongated as to appear cylindrical, but ending usually in a point, from the neighbourhood of which a number of rootlets spring.

Examples:

ACONITE.
BELLADONNA.
CALUMBA.
GENTIAN.
HORSERADISH.
LIQUORICE.
PAREIRA.
PYRETHRUM.
SUMBUL.
TARAXACUM.

Calumba is peculiar in the fact that several thick fleshy roots branch off together from the same point.

3rd. The rhizome or root stock: an underground axis which is either short and knobby, giving off numerous rootlets, as in the valerian and serpentary, or elongated and creeping horizontally along the ground like podophyllum.

Examples:

ARNICA.
GINGER.
HEMIDESMUS.
IPECACUANHA.
MALE FERN.
PODOPHYLLUM.
SERPENTARY.
VALERIAN.
VERATRUM VIRIDE.

Ipecacuanha is peculiar, inasmuch as the rhizome or chump is rarely shown to the student, who sees only the long bundles of rootlets.

Closely associated with roots are corms, bulbs, and tubers.

The corm is a short underground axis: it may be regarded as a thickened underground stem.

Example:

Colchicum.

The bulb may be regarded as an underground bud, from which the stem or ascending axis springs. Like a bud, it consists of a series of concentric layers, while in the corm these are only represented by one or more scaly leaves on its outside.

Example:

SQUILL.

The tuber is a thickened underground branch which in the potato exhibits numerous buds usually called eyes.

Example:

JALAP.

The second division of roots is according to their size, and a convenient distinction is: those that are larger than a quill, and those that are about the same size or smaller.

Those belonging to the first and second divisions, already

given, are all thicker than a quill; whereas those belonging to the third are about the size of a quill:

Examples:

Podophyllum. Sarsaparilla. IPECACUANHA. HEMIDESMUS.

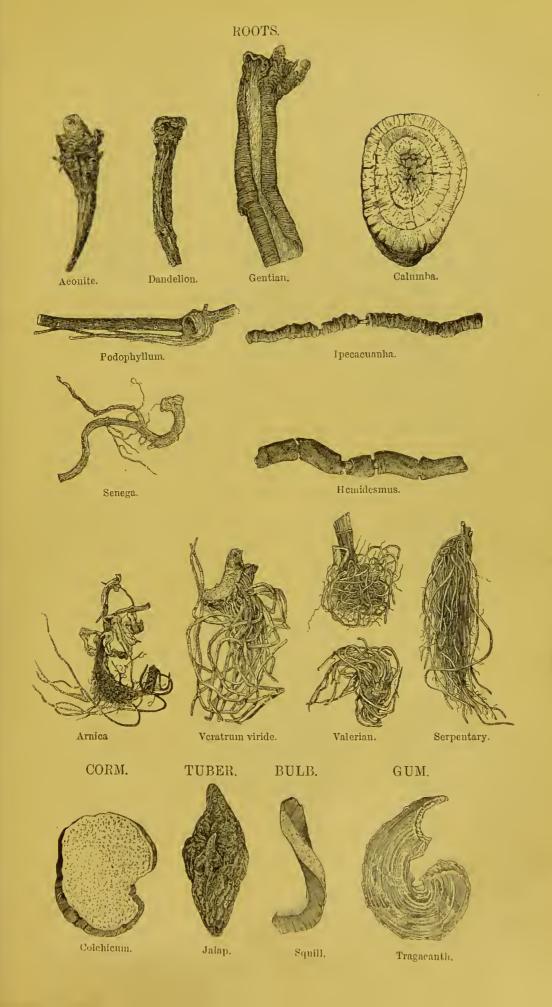
Or roots much smaller than a quill.

Examples:

ARNICA.
SERPENTARY.
VALERIAN.
VERATRUM VIRIDE.

ROOTS.

	May be confounded with
ACONITE	Horseradish.
Arnica	Valerian, serpentary, veratrum viride, sarsaparilla.
Belladonna	Gentian.
CALUMBA	
Dandelion (Taraxacum)	Aeonite, horseradish, pellitory.
GENTIAN	Belladonna, seammony (small pieces may be mistaken for liquorice).
GREEN HELLEBORE (Veratrum viride).	Valerian, serpentary, arniea.
Hemidesmus	Sarsaparilla, ipecaeuanha, senega.
Horseradish (Armoraeia)	Aconite, pellitory.
Liquorice (Glycerrhiza)	Horseradish, pellitory, dandelion.
PAREIRA	
Pellitory (Pyrethrum)	Horseradish, aconite.
Podophyllum	
RHATANY (Krameria)	Logwood, red sandal wood.
RHUBARB	
SARSAPARILLA (Sarsa)	Hemidesmus, senega.
SASSAFRAS	Quassia chips.
SCAMMONY	Belladonna.
Senega	Arniea, serpentary, valerian, veratrum viride.
SERPENTARY	Arniea, valerian, veratrum viride.
SUMBUL	
VALERIAN	Arnica, serpentary, veratrum viride.
	e Table of Substances, p. xxii.
<u> </u>	



BARKS.

Of the three kinds of stems, exogenous, endogenous, and acrogenous, the only ones which have separable barks are the exogenous. The thirteen barks of the pharmacopæia therefore all belong to plants of this class. They occur either in pieces more or less flat or in quills. The quills are formed by the thin bark taken from small stems or twigs tending to curl in at the edges, and thus form a roll of quill in the process of drying.

In pieces.	In quills.
Bebeeru.	CANELLA ALBA.
CINCHONA, YELLOW.	CASCARILLA.
Do. Red.	CINCHONA, PALE.
ELM.	CINNAMON.
LARCH.	Cusparia (incomplete quill).
MEZEREON.	POMECRANATE ROOT.
Oak.	

CUSPARIA (incomplete quill).

						May be confounded with
BEBEERU						. Red or yellow cinchona, or elm.
CANELLA A	LLBA					. Cusparia.
						. Pale cinchona.
						. Cascarilla.
Do.						. Red cinchoua, bebeeru.
Do.						. Yellow cinchona, bebeeru, larch.
CINNAMON						. Cascarilla, Canella alba.
						. Canella alba.
ELM.						
LARCH .						. Red cinchona, bebeeru.
MEZEREON.						
OAK.						
POMEGRAN.	ATE ROO	T.				Canella alba, cusparia cascarilla.

BARKS.



Casearilla.



Cusparia.



Pomegranate.



Pale Cinchona Bark.



Red Cinchona.



Yellow Cinchona.

STEMS.

There are four stems usually occurring in chips or masses, and which may be confounded with one another:—

GUAIACUM.

Logwood.

QUASSIA WOOD.

RED SANDAL WOOD (resembles Sassafras root).

The smaller stems :-

DULCAMARA.

Broom Tors.

CANNABIS INDICA.

CHIRETTA.

LOBELIA.

SAVINE TOPS.

Usually with leaves or flowers attached.

LEAVES.

The leaves of exogenous plants are uetted veined; those of endogenous plants are parallel veined, with the exception of sarsaparilla (smilax officinalis) and its allies; those of aerogenous plants have forked veins. The leaves of the pharmacopæia all belong to the exogenous plants. They are:—

May be confounded with

ACONITE Conium.

Bearberry Buehu, senna.

Belladonna..... Stramonium, hyoseyamus, digitalis.

Buchu Bearberry, senna.

CHERRY LAUREL.

CONIUM Acouite.

DIGITALIS Matico, belladonna, stramonium, hyosey-

amus.

Hyoscyamus Belladonna, stramonium, hyoseyamus,

digitalis.

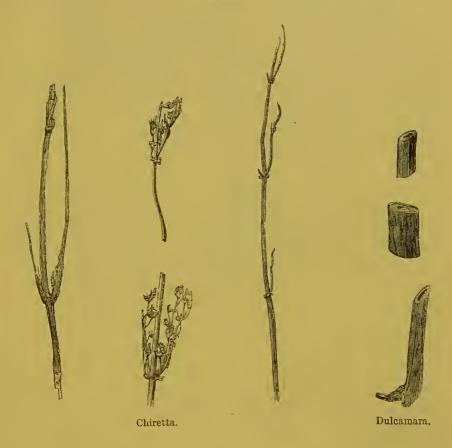
Matico Digitalis.

Senna.... Bearberry, buehu.

STRAMONIUM Belladonna, hyoseyamus, digitalis.

TOBACCO.

LETTUCE-whole herb.



LEAVES.



Alexandrian Senna.



Indian Senna.



Uva Ursi.



Buchu. Barosma betulina.



Barosma erenulata.



Barosma serratifolia.

FLOWERING TOPS AND FLOWERS.

ACONITE.
CANNABIS INDICA.
CUSSO.
CHAMOMILE (Anthemis).

CLOVES (Caryophyllnm). ELDER (Sambucus). Hop (Lnpulus). Rose.

FRUITS.

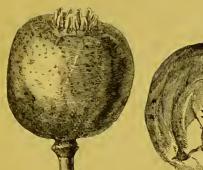
May be confounded with
BAEL Colocynth, poppy.
CAPSICUM
CARAWAY Coninm, fennel, dill.
CARDAMOM Sabadilla.
Cassia (Pulp officinal).
COLOCYNTH Poppy, bael.
CORIANDER White mustard.
Cubebs Pepper, pimento.
DILL (Anethum) Conium, earaway, fennel.
Dog Rose.
Fennel Caraway, eonium, dill.
Fig.
Hemlock (Conium) Caraway, fennel, dill.
ORANGE.
Pepper Pinnento, cubebs.
PIMENTO Pepper, cnbebs.
Poppy Coloeynth, bael.
Prune.
Raisins.
Sabadilla (Cevadilla) Cardamom.
SQUIRTING CUCUMBER (Elaterium).
TAMARIND (Pulp only is officinal).

SEEDS.

List:—	May be confounded with
	Almonds.
	Barley (Hordeum).
	Areca Nut Nutneg.
	CALABAR BEAN (Physostigma).
	CASTOR OIL (Ricinus communis) Croton oil.
	COLCHICUM Mustard, Stramonium.
	CROTON OIL Castor oil.
	Linseed.
	Mustard, Black (Sinapis nigra) Colehicum.
	Do. WHITE Coriander.
	Nutmeg (Myristica) Areca.
	NUX VOMICA.
	STRAMONIUM Colchieum.
Ergot is	the diseased seed of the rye, but the active part in it is the selection

Ergot is the diseased seed of the ryc, but the active part in it is the selerotium which it contains, and not the seed itself.

FRUITS.



Poppy.



Colocynth (peeled).



Cardamom.





Pimento.











Cubebs.





Conium. Caraway.





Fennel.



Dill



Coriander.

SEEDS.



Calabar Bcan.

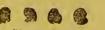


Castor Oil.





Croton Oil.







Colchicum.



Elaterium.



b

INDEX OF SUBSTANCES

LIABLE TO BE MISTAKEN FOR ONE ANOTHER.

ACACIÆ GUMMI, for Mastiche.

Acidum Arseniosum (porcelain like), for Hydrargyri Perchloridum (crystalline mass).

Aconiti Radix (conieal), for Armoraciæ Radix (longer).

Aconiti Folia (wedge-shaped segments), for Conii Folia (finely divided, mousey odour).

Aloe Barbadensis, for Aloe Socotrina (translucent edge).

Aloe Socotrina, for Aloe Barbadensis.

Aloes (both kinds), for Gnaiaci Resina (green tinge, not bitter).

Ammonii Chloridum (striated mass), for Camphor (strong smell), or Potassae Nitras (striated crystals).

Ammouiacum (less odour), for Assafeetida, or Myrrha (aromatic smell).

Ammoniæ Benzoas, for Santonin, or Cadmii Iodidum.

Antimonium Sulphuratum, for Hydrargyri Oxidum Rubrum (glistens).

Antimonium Tartaratum (white and opaque), for Potassæ Sulphas (different sound when bottle is shaken).

Anthemidis Flores, for Sambuci Flores (much smaller).

Arcca, for Myristica (strong smell).

Argenti Nitras (often grey tinge), for Potassæ Chloras (lighter aud different sound when the bottle is shaken).

Armoraciæ Radix, for Aconiti Radix.

Arnicæ Radix (often leaves adhering), for Serpentariæ Radix, Veratri Viridis Radix, or Valerianæ Radix.

Assafœtida (strong smell), for Ammoniacum, Benzoinum, Elemi, Galbanum, Myrrha, or Resin.

Beberiæ Sulphas (bitter), for Ferrum Tartaratum.

Belladonnæ Folia (edges eutire), for Stramonii Folia (edges dentate), or Digitalis Folia (vcins thick), or Hyoseyami Folia (sticky lumps).

Belladonnæ Radix.

Belæ Fructus (hard, no stigma), for Colocynth (light, bitter), Poppy (stigma).

Benzoinum (aromatic), for Assafætida, Ammoniacum, or Galbanum (fætid), Resina (terebinthinate smell), or Myrrha (different smell).

Bismuthi Subnitras (white), for Hydrargyri Subchloridum (yellowish tinge), or Zinei Oxidum (slight yellowish tinge).

Buchu Folia (dentate or serrate edges, vittæ), for Uva Ursi Folia (thick, edges entire), or Senna (base oblique).

CADMII IODIDUM (heavy), for Santonin, or Ammoniæ Benzoas (aromatic smell).

Camphora (strong smell), for Chloral Hydras, Ammonii Chloridum, Alnm.

Canellæ Albæ Cortex (aromatic), for Cuspariæ Cortex (cnt edge), or Granati Radicis Cortex (not aromatic).

Cantharidis Pulvis (shining green particles in brown powder), for Kamala, or Hydrargyri Oxidum Rubrum.

Cannabis Indica, for Hyoscyami Folia, Lobelia, or Chiretta.

Carui Frnctus (smell), for Conii Frnctus, Fœniculi Frnctus, Anethi Fructus, or Santonica.

Cardamomum, for Sabadilla.

Cascarillæ Cortex (small, white, aromatic), for Cinchonæ Pallidæ Cortex (tufty lichens), or Cuspariæ Cortex (cut edge).

Castorenm (smell), for Ficus.

Cevadilla, for Cardamom.

Chiretta (bitter), for Lobelia, Hyoscyami Folia, Cannabis Indica, or Scoparii Cacumina.

Chloral Hydras (peculiar smell), for Camphora.

Cinchonæ Flavæ Cortex (epidermis removed, gouge marks), for Cinchonæ Rubræ Cortex, Nectandræ Cortex (no velvety fracture), or Ulmi Cortex.

Cinchonæ Rubræ Cortex, for Cinchonæ Flavæ Cortex, or Laricis Cortex.

Cinchonæ Pallidæ Cortex, for Cascarillæ Cortex, or Cuspariæ Cortex.

Cocens (soft), for Kino (hard).

Colchici Semina (larger, harder), for Sinapis Nigra (round).

Conii Folia (monsey odour), for Aconiti Folia.

Conii Fractus (mousey smell), for Carui Fractus (longer), Santonica, Fœniculi. Fructus (larger), or Anethi Fractus (winged).

Coriandri Frnctus (smell), for Sinapis Alba.

Crotonis Tiglii Semen, for Ricini Communis Semen (shinier, spots more distinct) Cubeba (tailed), for Piper Nigrum, or Pimento.

Cuspariæ Cortex (cut edge), for Cancllæ Albæ Cortex, Cinchonæ Pallidæ Cortex or Cascarillæ Cortex.

Cusso (larger), for Sambuci Flores.

DIGITALIS FOLIA, for Maticæ Folia (thicker veins), Hyoscyami Folia, Stramonii Folia, or Belladonnæ Folia.

Elemi (soft, sticky), for Assafeetida, or Galbanum.

FERRI ET AMMONIÆ CITRAS, for Beberiæ Sulphas (bitter), Ferri et Quiniæ Citras (lighter), Ferrnm Tartaratum (darker), or Iodum.

Ferri Arsenias (green), for Ferri Phosphas (blue).

Ferri Phosphas, for Ferri Arsenias.

Ferrum Tartaratum (garnet rcd), for Beberiæ Sulphas (bitter), Ferri et Ammoniæ Citras (lighter), Ferri et Quiniæ Citras (lighter still), or Iodum. Ficus, for Castoreum.

Fæniculi Fructus (longer), for Carni Fructus, or Conii Fructus.

GALBANUM, for Ammoniacum, Assafætida, Benzoin, Elemi, Myrrha, or Resin. Gentianæ Radix (split, edges incurved), for Pyrethri Radix or Belladonnæ Radix. Glycyrrhizæ Radix (sweet), for Pyrethri Radix (pungent), or Taraxaci Radix (bitter).

Granati Radieis Cortex, for Canellæ Albæ Cortex (aromatic).

Guaiaci Resina (greenish), for Aloes (both kinds), 'Benzoinum, Myrrha, or Scammoniæ Resina.

Hemidesmi Radix (transverse cracks), Sarsæ Radix, or Ipecacuanha.

Hæmatoxyli Lignum (chips or log), for Pteroearpi Lignum (more shiny), or Krameriæ Radix.

Hydrargyri Perehloridum, for Aeidum Arseniosum.

Hydrargyri Subehloridum (great weight, easily felt by shaking up and down in the bottle), for Bismuthi Subnitras, or Zinei Oxidum.

Hydrargyri Oxidum Rubrum (shiny), for Antimonium Sulphuratum, Kamala, or Pulvis Cantharidis.

Hyoscyami Folia (sticky, agglutinate in lumps), for Digitalis Folia, Stramonii Folia, Belladonæ Folia, or Cannabis Indica (seeds visible).

IODUM (smell), for Ferri et Ammoniæ Citras, or Ferrum Tartaratum.

JALAPÆ RESINA, for Aloes (bitter), Resina (terebinthinate smell), Scammoniæ Resina (more translucent).

Juniperi Sabinæ Caeumina (appressed), for Juniperi Communis Folia (not officinal).

KAMALA, for Cantharidis Pulvis, or Hydrargyri Oxidum Rubrum.

Kino, for Krameriæ Extractum, or Coccus.

Kousso (Cusso, vide ante), for Lupulus.

Krameriæ Extractum, for Kino.

LOBELIA (loose, usually purplish tinge on stems), for Chiretta. Lobelia (in compressed cakes), for Veratri Viridis Radix (compressed). Lupulus, for Kousso (Cusso, vide ante).

MAGNESIÆ SULPHAS (bitter saline), for Zinci Sulphas (astringent), Zinci Acetas (astringent), Acidum Oxalicum (acid), or Plumbi Acetate (acetous odour, sweet).

Manna (soft), for Saccharum Laetis.

Mastiche (round, hard, aromatic), for Aeaeiæ Gummi, Ammoniacum, or Galbanum.

Matieæ Folia (square meshed network of thiek veins), for Digitalis Folia.

Myristica, for Areca.

Myrrha (aromatic smell), for Ammoniaeum, Assafætida, Benzoin, Galbanum, or Resina.

NECTANDRÆ CORTEX (fracture not velvety), for Ulmi Cortex, Cinchona Flavæ Cortex, or Cinchonæ Rubræ Cortex.

Oxalicum Acidum, for Zinei Sulphas, Magnesiæ Sulphas, Plumbi Acetas, or Strychnia (bitter).

PIMENTO (stigma at top), for Piper Nigrum, or Cubeba.

Piper Nigrum, for Pimento, or Cubeba (tail).

Pix Burgundica, for Elemi, or Scammonium.

Plumbi Acetas (acetous smell, sweet), for Magnesiæ Sulphas (bitter saline), Acidum Oxalicum (acid), or Zinei Sulphas (astringent).

Potassæ Chloras, for Argenti Nitras.

Potassæ Nitras, for Sodæ Sulphas, or Ammonii Chloridum.

Potassæ Sulphas (more transparent), for Antimonium Tartaratum.

Pterocarpi Lignum (shiny), for Hæmatoxyli Lignum, or Krameriæ Radix.

Pyrethri Radix (radiating transverse rays, pungent), for Gentianæ Radix (bitter), Glycyrrhizæ Radix (sweet), or Taraxaci Radix (bitter).

QUASSLE LIGNUM (bitter), for Guaiaci Lignum (greenish tinge), or Sassafras Radix (aromatic).

Resina (terebinthinate smell), for Aloes, Assafœtida, Benzoinum, Guaiaci Resina, Myrrha, or Scammoniæ Resina.

Ricini Communis Semen, for Crotonis Tiglii Semen.

Sabinæ Cacumina (appressed), for Juniperi Communis Cacumina (not officinal). Sabadilla, for Cardamomum.

Saccharum Lactis (hard), for Manna.

Saccharum (sweet tastc), for Sodæ Phosphas.

Sambuci Flores (small, pale), for Anthemidis Flores, or Cusso.

Santoninum (often yellowish), for Ammoniæ Benzoas (faint aromatic smell), or Cadmii Iodidum (pearly lustre).

Santonica, for Conii Fructus, or Carui Fructus.

Sarsæ Radix (beard of rootlets), for Hemidesmi Radix.

Sassafras Radix (aromatic), for Quassiæ Lignum.

Scilla (softer, pliable), for Tragacantha.

Scoparii Cacumina (angular), for Chiretta (round).

Senna (oblique basc), for Uva Ursi, or Buchu.

Serpentariæ Radix (rootlets small), for Arnicæ Radix (leaves), Veratri Viridis Radix (rootlets thicker), or Valerianæ Radix (smell).

Sinapis Alba (small), for Coriandri Fructus (aromatic smell).

Sinapis Nigra (small), for Colchici Semina.

Sodæ Arsenias, for Sodæ Sulphas.

Sodæ Sulphas, for Sodæ Arsenias.

Sodæ Phosphas, for Saccharum.

Stramonii Folia (dentate edge), for Belladonnæ Folia, Digitalis Folia, or Hyoscyami Folia.

Strychnia (white, opaque, bitter), for Acidum Oxalicum (acid), Magnesiæ Sulphas, Zinci Sulphas.

TARAXACI RADIX, for Pyrethri Radix (pungent), or Glycyrrhizæ Radix (sweet). Tragacantha, for Seilla.

ULMÆ CORTEX, for Nectandræ Cortex, or Cinchonæ Flavæ Cortex. Uvæ Ursi Folia, for Buchu Folia, or Senna.

VERATRI VIRIDIS RADIX (compressed cakes), for Lobelia (in compressed cakes). Veratri Viridis Radix (rootlets thicker and pitted), for Valerianæ Radix, Arnicæ Radix, or Sepentariæ Radix.

ZINCI OXIDUM, for Hydrargyri Subchloridum (heavier), or Bismuthi Subnitras (whiter).

Zinci Sulphas, for Magnesiæ Sulphas, Acidum Oxalicum, or Plumbi Acetas.

QUESTIONS ON

MATERIA MEDICA AND THERAPEUTICS.

- What two kinds of Charcoal are officinal? How are they prepared? What are their properties?
- For what purposes, in what ways, and in what doses, are they employed?
- What are the sources of Sulphur? What are the officinal forms? How are they prepared? What are the impurities they may contain? How are these detected?
- What is the physiological action of Sulphur? For what purposes is it used? In what officinal preparations does it form the active ingredient? What are their doses?
- What are the sources of Chlorine, Bromine, and Iodine? Describe the preparation of each and give the chemical formulæ.
- What are the properties of Chlorine? For what purposes is it used? In what officinal preparations does it form the active ingredient? What are their doses?
- What are the physical characters and chemical reactions of Iodine? What impurities may it contain, and how are they detected?
- What are the physiological actions of Iodine? How do those of free Iodine differ from those of an alkaline Iodide? To what disagreeable symptoms may it give rise?

How may these be counteracted? What are the therapeutical applications of Iodine externally and internally? What are the officinal preparations of Iodine and iodides? What are their doses?

- What are the officinal Bromides? What is their physiological action? In what diseases are they employed? In what doses are they given? What symptoms indicate that they should be diminished or discontinued?
- Enumerate the officinal acids. Which of them are prepared by the aid of Sulphuric acid?
- Describe the preparation of Sulphuric acid. What are its physical characters and chemical reactions? What impurities may it contain? How are they detected?
- Describe the preparation of those acids which are made by the aid of Sulphuric acid, and give their chemical tests.
- Describe the preparation of those acids which are made without the aid of Sulphuric acid, and give the chemical reactions of each.
- What acids act as caustics? What is their action when applied to the skin? Describe the symptoms of poisoning by them. What signs help you to distinguish the particular acid used? How would you treat a case of poisoning by them? What injurious consequences may they produce after the immediate symptoms of poisoning have passed off?
- What are the physiological actions of dilute Sulphuric, Nitric, Hydrochloric, and Phosphoric acids upon the alimentary canal, mucous membranes, temperature, and urine? For what purposes are they used in medicine? Mention the conditions for which each acid is most suitable.
- How is glacial Acetic acid prepared? How is its strength ascertained? What are the usual impurities of Acetic acid? How are they detected? For what purposes is Acetic acid used in medicine and pharmacy? In what officinal preparations is it contained?

- For what purposes are Citric and Tartaric acids used? What changes do they undergo in the organism?
- Describe fully the physiological action of Hydrocyanic acid, giving its local action, the symptoms of poisoning by it, the treatment of poisoning by it, and the action of the acid on the various tissues and organs in the body. What are the therapeutical uses of Hydrocyanic acid? In what doses would you give it? What precautions would you take when applying it externally?
- What is the chief source of Potash? Name two subsidiary sources.
- What Salts of Potash are there in the Pharmacopæia?
- Describe the preparation of each. Describe the appearance, and give the chemical reactions of each.
- What are the physiological actions of Potash Salts generally, and in what respects do they differ from those of Soda?
- What is the action of Bicarbonate of Potash on the skin, mouth, stomach, intestines, bronchial secretion, tissue change and urine? In what diseases is it used? In what forms and in what doses is it employed?
- In what way is the action of the base modified by its combination with acids, as shown in the physiological actions of the Salts of Potash?
- What is the chief source of Soda? Name two subsidiary sources.
- Describe the preparation of Carbonate of Soda, giving formulæ.
- Enumerate the other officinal preparations of Soda. Describe shortly the preparation of each. Describe their appearance and chemical reactions.
- State shortly the physiological action and uses of each. What are the doses of each?
- What are the reactions, appearance, therapeutical uses and doses of the officinal preparations of Lithia?

- In what respects, chemical and physical, does Ammonia differ from the other alkalis? What is the physiological action of Liquor Ammoniæ? What are its therapeutical uses? In what ways and in what doses may it be used?
- What are the officinal preparations of Ammonia? What is the mode of preparation and the reactions of each?
- What are the physiological actions and therapeutical uses of each preparation? What are the doses of each?
- What two forms of Carbonate of Lime are in the Pharma-copæia? How is each prepared? What are their chemical reactions? For what purposes are they used in medicine? What are their officinal preparations? What is the dose of each?
- How is Lime prepared? For what purposes is it employed? What are its officinal preparations and their doses?
- Describe the preparation of Phosphate of Lime. What is its appearance, and by what reactions is it distinguished? What part does it play in the animal organism? In what
- conditions is it used? In what doses is it given?
- What is the appearance of Hypophosphite of Lime? How is it prepared? How is it recognised? For what purposes is it used? In what doses is it given?
- How is Calx Chlorata prepared? What is its chemical composition? How is it affected by exposure to air, and how by the addition of an acid? For what purposes is it used? What are its officinal preparations?
- What is Alum, and how is it recognised? What are its physiological actions? For what purposes is it used?
- Mention a number of affections in which it is employed externally. For what purposes, and in what doses would you give it internally?
- What are the uses and doses of Oxalatc of Cerium?
- What are the sources of Magnesia? Describe the preparation of the Sulphate. What are its characters and chemical reactions? In what officinal preparations does it occur?

- What is the physiological action of the Sulphate? For what purposes, in what doses, and with what precautions is it given?
- Describe the preparation of the other compounds of Magnesium in the Pharmacopæia. What are the officinal preparations and their doses?
- For what purposes is each used? To what disagreeable results may their continued employment give rise?
- What is the appearance of Iodide of Cadmium? For what purposes and in what form is it employed?
- Describe the preparation of Sulphate of Zinc, stating how it is freed from impurities, and giving the chemical formula. What are the chemical reactions of Zinc salts?
- What are the actions of Sulphate of Zinc on albumen, on the surface of the body, on mucous membranes, on the stomach and intestines, and nervous system?
- In what diseases is it used, and in what doses?
- What other Salt of Zinc has an action like that of the Sulphate?

 How is it prepared? How is it distinguished from the Sulphate?
- How are the Carbonate and Oxide of Zinc recognised and distinguished from each other? How are they prepared?
- What are their actions? For what diseases are they used, and in what ways are they employed?
- What are the physical characters, chemical reactions, physiological actions, therapeutical uses, and doses of Sulphate of Copper?
- Enumerate the officinal preparations of Mercury, classifying them into (1) those containing metallic Mercury, (2) Mercurous salts, (3) Mercuric salts.
- Describe fully the physiological action of Mercury, mentioning its action on secretion, digestion, the blood, tissue change, and the nervous system. How is Mercury excreted?
- What are the forms of Mercurial poisoning, acute and chronic? How are they to be treated?

- How is Grey Powder prepared? How is it recognised? What impurity may be present in it, and how is it to be detected?
- In what diseases is Grey Powder employed and in what doses?
- Describe the preparation of Calomel, giving the chemical formula. What are its chemical reactions? What impurity may be present in it, and how is this to be detected?
- In what diseases would you employ Calomel? In what forms, and in what doses would you use it? To what extent would you push it?
- Describe the preparation of Corrosive Sublimate, giving the formulæ.
- Describe the symptoms of poisoning by it, mentioning particularly the points in which it differs from poisoning by other corrosive substances. What treatment should be employed? In what diseases is Corrosive Sublimate employed? In what forms and in what doses would you give it?
- Describe the preparation of the other Salts of Mercury. Give their physical characters and chemical reactions. What are their officinal preparations and their doses?

In what diseases are they used?

What are the general tests for Salts of Lead?

- What are the effects of Lead on the system when taken in small quantities for a long time? What are the chief sources of Lead poisoning?
- What occupations are peculiarly liable to induce Lead poisoning? What precautions should be taken to prevent it? What is the usual diagnostic sign? What treatment would you employ?
- What are the officinal Salts of Lead? How are they prepared? What are their officinal preparations?
- For what purposes are they employed externally and internally? What precautions are to be employed in using some of them?

- What are the usual strengths of their solutions for external application? What are the doses of the preparations which are used internally?
- What are the tests for Iron and by what reactions are ferric distinguished from ferrous salts?
- Enumerate the officinal preparations of Iron and classify them into (a) ferrous, ferric, and mixed; (b) into astringent and non-astringent preparations.
- What are the physiological actions of Iron? In what diseases is it employed? What are its contra-indications?
- What are the indications which lead you to prefer the weaker and which the stronger preparations of Iron?
- By what chemical reactions are Salts of Bismuth recognised?
- How is the subnitrate prepared? How would you administer it and in what doses?
- What are its physiological actions? In what diseases is it used?
- What are the other officinal preparations of Bismuth? Describe the preparation of each and state how you would recognise it. What circumstances would influence your choice of each preparation in a prescription? What are the doses of each?
- What are the chemical reactions of Salts of Antimony? By what test is it to be detected in minute quantities? What are the sources of Antimony? Enumerate the officinal preparations of Antimony. Describe the preparation, appearance, and chemical composition of Chloride of Antimony, Sulphuretted Antimony, and Tartar Emetic.
- Describe fully the physiological action of Tartar Emetic on the skin, intestinal canal, circulation, respiratory tract, nervous system, tissue change, and urine (a) when given in large, and (b) when given in moderate or small doses, and for a length of time.
- What circumstances would lead you to suspect antimonial poisoning? What treatment would you adopt?

- In what diseases is Tartar Emetic used? Describe fully the method in which you would employ it, and the doses you would give.
- In what respects does the action of the other preparations of Antimony differ from that of tartar emetic? In what diseases are they used? In what doses are they given?
- What is the chemical composition of Arsenic? What are the chemical reactions of arsenites and arseniates? In what manner are minute quantities of Arsenic detected? What are the officinal preparations into the composition of which Arsenic enters?
- What are the symptoms of arsenical poisoning? How would you treat a case of it? What symptoms would lead you to suspect poisoning by an arsenical wall paper or by arsenical paint? Describe fully the physiological action of Arsenic, and mention the points of agreement and difference between its action and that of Antimony.
- In what diseases is Arsenic used? In what forms, in what doses, and with what precautions would you administer it?

 What symptoms would lead you to discontinue its use or to diminish the dose?
- How is Phosphorus prepared? What are the symptoms of poisoning by it? How would you treat them? Mention what must be avoided as well as what must be done. What is the physiological action of Phosphorus in small doses, and particularly its effect upon the albuminous tissues and bones? In what diseases is it used? In what officinal preparations does it form the essential constituent? In what doses would you give them?
- What is the chemical composition of Alcohol, and what changes does it undergo by oxidation?
- Describe fully the physiological action of Alcohol upon albumen, upon low forms of life, upon the skin, mouth, stomach, intestine, blood, heart and blood-vessels, temperature, tissue change, brain, spinal cord, and other parts of the nervous system, and upon secretion. How is the action of Alcohol

- modified (a) by the quantity taken, (b) by its concentration, (c) by its admixture with ethers, &c., as in wine, (d) by age, (e) sex, (f) constitution, (g) fasting, (h) fatigue, (i) external temperature, (k) custom, (l) disease?
- Is Alcohol a food? Give the arguments for and against its being a food.
- In what conditions and in what diseases is Alcohol useful?
- What indications would induce you to give and what to withhold Alcohol?
- What injurious consequences may result from the too free administration of Alcohol? How would you treat them?
- What are the symptoms of Chronic Alcoholism? How would you treat this condition?
- What are the symptoms of Delirium Tremens and Mania a potu? How would you treat these conditions?
- How is Spiritus Ætheris Nitrosi prepared? What is its chemical composition? What are its appearance and reactions? For what purposes is it employed? What are its doses?
- How is Acctic Ether prepared? For what is it used, and in what doses?
- How is Nitrite of Amyl prepared? How is it recognised?
- Describe its physiological action. In what diseases is it used? In what manner and with what precautions is it employed?
- Describe the preparation of Chloroform. What are its physical characters and chemical reactions? What impurities may it contain, and how are they to be recognised? What changes may it undergo by keeping, and what precautions should be taken to prevent these?
- Describe fully its physiological action on the skin, circulation, respiration, and nervous system. In what diseases is it employed (distinguishing between its external application, its administration by the month, and inhalation)? State precisely to what extent you would allow it to be inhaled for different diseases. What are the sources of danger

from Chloroform? How would you recognise the approach of danger? What means would you adopt to avert it? Describe the different means by which Chloroform may be administered. What adjuncts may be employed to aid the action of Chloroform? What are its officinal preparations? What are their doses?

- How is Chloral prepared? What are its characters, physical and chemical?
- Describe its physiological action. In what diseases is it employed? What are the dangers to be apprehended from its use? How are these to be averted? In what doses would you employ it? In what forms would you administer it?
- How is Nitrous Oxide prepared? For what purpose is it used in medicine?
- What is its physiological action? What are its advantages and disadvantages as compared with other anæsthetics?
- What is the source of Creosote? What are its physical properties and chemical reactions? In what forms and in what doses is it employed? What substance is incompatible with it?
- What is its physiological action? In what diseases is it used?
- What is the source of Carbolic Acid? What are its chemical and physical properties? In what ways and in what doses is it used? What are its officinal preparations?
- What are its physiological actions? For what purposes is it employed?
- How is Salicylate of Soda prepared? What are its physiological actions, and in what respects do they differ from those of Salicylic Acid? In what diseases is it employed? What are its doses?
- What are the sources, botanical and geographical, of Aconite?
 By what characters are the root and leaves distinguished?
 Describe the preparation of the extract. What active principle does the plant contain? What are the officinal preparations? In what doses and with what precautions would you employ them?

- What are the symptoms of poisoning by Aconite? What treatment would you adopt? What is the physiological action of Aconite on the circulation, respiration, nervous system, and secretions? In what diseases is it employed?
- What are the sources, botanical and geographical, of Podophyllin? What are its physical characters, and those of the root from which it is prepared? Describe its preparation.
- What is its physiological action? In what conditions is it employed? What are its doses?
- What are the sources, botanical and geographical, of Calumba? What is its appearance, and what is its chemical composition? What are its officinal preparations? Mention any peculiarity in the preparation of one of them. For what purposes are they employed, and in what doses?
- What are the sources, botanical and geographical, of Pareira?

 Describe its appearance and chemical composition? For what is it used? What are its officinal preparations and their doses?
- How is Opium obtained? What are the three chief alkaloids in it? With what acid are they combined? What are the chemical reactions of Morphia and of Meconic Acid?
- Describe the physiological effects of Opium: firstly, when given in a small dose; secondly, a moderate dose; and thirdly, a large dose. What symptoms aid you in distinguishing between Opium poisoning and other conditions which may be mistaken for it? How would you treat a case of Opium poisoning? How would you treat the disagreeable symptoms which often occur after a moderate dose of Opium? How is the action of Opium modified by (a) age, (b) sex, (c) idiosyncrasy, (d) habit? In what points is the action of Morphia said to differ from that of Opium?
- Describe the preparation of Morphia. What are the officinal preparations of Opium and their doses? What are the officinal preparations of Morphia and their doses?
- What is the physiological action of Thebaia, Methyl-Thebaia, and Apomorphia?

In what diseases is Apomorphia used and in what doses?

In what disease and in what doses is Codeia used?

- What are the two kinds of Mustard, and from what plant are they obtained? How do they differ in appearance and chemical composition? What active principles do they yield? What conditions interfere with the production of these principles? What are the physiological actions and therapeutical, uses of Mustard? What are its officinal preparations?
- What are the officinal preparations of Horseradish? For what purposes, and in what doses, is it used?
- Whence is Senega Root obtained, and how is it recognised? What active principle does it contain? What are its physiological actions and therapeutical uses? What are its officinal preparations and their doses?
- Whence is Rhatany obtained? What is its active principle? In what diseases is it used? What are its officinal preparations and their doses?
- What are the officinal preparations of Linseed? For what are they used? In what way would you make a Linseed poultice for application to an external sore, and in what way would you apply it to affect a deep-seated organ?
- Whence is Cotton Wool obtained, and for what is it used? What modifications does it undergo when treated with acids? For what purposes and in what ways is the substance so obtained employed?
- What preparations are obtained from Orange Trees, and for what purposes are they used?
- What are the preparations of Lemon contained in the Pharmacopæia? For what purposes and in what doses are they employed?
- What are the sources, botanical and geographical, of Bael Fruit? For what purpose, in what form, and in what doses is it given?
- What are the sources, botanical and geographical, of Cacao Butter? For what purpose is it used?

- What are the sources, geographical and botanical, of Copaiba?
 What is its chemical composition?
- In what diseases is it used? In what ways and doses is it administered?
- Whence is Gum Acacia obtained, and for what is it used?
- What kinds of Rose Leaves are officinal? What preparations are obtained from each kind, and for what are they used? What officinal preparation is obtained from the Dog Rose?
- How do Bitter and Sweet Almonds differ from each other? What preparations of Almonds are officinal, and for what are they used?
- What is the use of Prunes?
- What are the sources, botanical and geographical, of the Cherry Laurel? What is its officinal preparation? For what purposes and in what doses is this used?
- What are the sources, botanical and geographical, of Kousso? For what is it used, and in what doses? What is peculiar about the infusion?
- What are the sources, botanical and geographical, of Cloves, Pimento, and Cajuput? To what substances do they owe their activity? What are their actions and uses? What are their officinal preparations and doses?
- Whence is Pomegranate Bark obtained? For what purpose and in what form is it used?
- What are the sources, botanical and geographical, of Colocynth?
 What is its active principle? What are its officinal preparations and their doses?
- What are its physiological actions? In what diseases is it employed?
- What is Elaterium? Whence is it obtained, and how is it prepared? What are its officinal preparations and their doses?
- For what purposes and in what diseases is it used?
- What are the sources, botanical and geographical, of Conium?
 What parts of the plant are officinal? What active principles do they contain? What are its officinal preparations and the doses?

- Describe the physiological action of Conium and its active principles. In what diseases is it used?
- What are the sources of Assafætida, Galbanum, and Ammoniacum? What is their chemical composition? For what purposes are they used? What are their officinal preparations and doses?
- What are the sources, geographical and botanical, of Anise, Caraway, Coriander, Dill, and Fennel? To what substances do they owe their activity? For what are they used? What are their officinal preparations and doses?
- What are the sources of Sumbul? For what purposes and in what way is it used?
- What is the use of Elder-Flower Water?
- What are the sources, botanical and geographical, of Cinchona? What kinds of Cinchona are officinal, and how are they distinguished from each other? What active principles do they contain? What are the officinal preparations and doses of each?
- Describe generally the preparation of Quinine. What are its chemical reactions?
- Describe fully its physiological action, and state wherein it differs from that of Cinchona. In what diseases are Quinine and Cinchona employed?
- What are the sources, botanical and geographical, of Ipecacuanha? What is its appearance? What active principle does it contain, and in what part of the root is this found?
- What is the physiological action of Ipecacuanha? In what diseases is it used? What are its officinal preparations? In what doses would you give it? Mention any precautions that you would take in administering it in certain diseases.
- Whence is Catechu obtained? What is it like and what is its composition? For what purposes is it used? What are its officinal preparations and their doses?
- What are the active principles of Valcrian? What are its officinal preparations and doses? For what purposes are they used? Name some inorganic compounds which are used for similar purposes.

- Whence is Pyrethrum obtained? For what purposes and in what ways is it used?
- Whence is Santonine obtained? How is it prepared?
- What peculiar physiological action has it? For what purpose is it employed? In what doses should it be given, and with what precautions?
- What are the officinal preparations of Chamomile? For what purposes and in what doses are they used?
- What are the officinal preparations of Taraxacum? In what diseases are they given, and in what doses?
- What is the usc of Lettuce?
- What are the sources, botanical and geographical, of Arnica? What is its chemical composition?
- What is its physiological action? For what purposes is it used? How is it applied?
- What are the sources, botanical and geographical, of Lobelia?
- What are its physiological actions and therapeutical uses? What are its officinal preparations and doses?
- For what purpose, and in what form, are Bearberry Leaves given?
- What are the therapeutical applications of Gutta Percha?
- What are the sources, botanical and geographical, of Benzoin?

 What acid does it contain? For what purpose is it used?

 What salt of the acid is frequently administered? In what officinal preparations is Benzoin or Benzoic Acid contained?
- Enumerate the officinal substances derived from the Olive.
- What are the characters of Glycerine? and what is its chemical constitution? What are its pharmaceutical and therapeutical uses?
- What is soap? What kinds are officinal? How do they differ from each other chemically and physically? For what are they used?

- Whence is Manna obtained? For what is it used? And in what doses?
- What are the sources, botanical and geographical, of Nux Vomica? Describe the fruit and seeds. What two alkaloids and what acid are contained in them? What are the officinal preparations obtained from Nux Vomica? State generally their action and uses and their doses.
- How is Strychnia prepared? What is its appearance? Give one characteristic test for it. What is the test for Brucia?
- Describe fully the physiological action of Strychnia, and mention the distinctions between Strychnia poisoning and tetanus. What treatment would you employ in a case of Strychnia poisoning? In what diseases is it used? What are its contra-indications? What symptoms show that it should be partially or completely discontinued? What are its officinal preparations and their doses?
- Whence is Gentian root obtained? For what is it used? What are its four officinal preparations and their doses? Name another plant belonging to the same order which has similar actions and uses.
- What is Scammony, and whence is it obtained? How is Scammony resin prepared? What is the action of Scammony and its resin? Name two preparations containing Scammony, and five containing Scammony resin. What are the doses of each?
- What are the botanical and geographical sources of Jalap?
 What is its active principle? For what purposes is it used? What are its preparations and their doses?
- What are the sources, botanical and geographical, of Belladonna? What active principle does it contain? What are the officinal preparations of Belladonna, and what are their doses?
- Give a full account of the physiological action of Belladonna, mentioning especially the kind of rash and form of delirium which occur in cases of poisoning, and the action of Belladonna or Atropia on the eyes, heart and vessels, spinal cord and motor nerves, and secretion of saliva and sweat. In what diseases is Belladonna employed?

- What parts of the Stramonium plant are used in medicine and what are their characters? What are the officinal preparations and their doses?
- What is the active principle and physiological action of the plant? In what diseases is it used?
- What are the sources, botanical and geographical, of Digitalis? What is its action on the heart of the frog? What is its action on the heart, blood pressure, and urinary secretion in mammals? What is its action on the nervous system?
- What symptoms induce you to discontinue its use or diminish the dose? What precautions do you take while administering it? How would you treat a case of poisoning by it? In what diseases is it employed? What are its officinal preparations and their doses?
- Mention four essential oils obtained from the natural order Labiatæ, and state their therapeutical uses and doses.
- Whence is Rhubarb obtained? What is its composition? What are its actions in *small* and in large doses? Name seven officinal preparations, and give their doses.
- For what purpose is Cinnamon generally used?
- What is the chemical nature of Camphor? What is its action? What is the difference between Linimentum Camphoræ and Linimentum Camphoræ Compositum?
- What is the action of Croton Oil, internally and externally? For what purposes and in what ways is it used?
- What are the sources, botanical and geographical, of Castor Oil? How is it prepared? What are its action and uses? In what ways and in what doses would you administer it?
- What is Kamala, and for what is it used? What dose would you give, and how would you administer it?
- What is Cubebs? For what purpose and in what preparations is it given? What are their doses?
- How is Gallie acid prepared? How does it differ from Tannic acid? For what purposes and in what doses is it given?

- What are the uses of Tannic acid, and in what forms may it be used?
- Whence is Cannabis Indica obtained, and in what forms is it met with? What are its officinal preparations and their doses?
- What is its physiological action? What are its therapeutical uses?
- Mention three volatile oils, two resins, and two oleo-resins obtained from the order Coniferæ.
- Describe the physiological actions of Oil of Turpentine upon the skin, alimentary canal, nervous system, and urinary secretion. For what purposes and in what forms is it used?
- What is the action of Oil of Juniper? For what is it used, in what forms and doses?
- Whence is Savin obtained? What is its active principle? What are its actions? For what is it used? What are its officinal preparations? What are their doses?
- What are the sources of Sarsaparilla? For what is it used? Name three officinal preparations, and state their doses.
- What are the sources, botanical and geographical, of Squill?
 What is its active principle? What are its officinal preparations and their doses?
- What are its physiological actions on the respiratory and digestive tracts, on the circulation and urinary secretion? For what is it used?
- What are the two kinds of Aloes? Whence do they come? How are they distinguished? What is their composition? What are the officinal preparations of each?
- For what purposes and in what doses are they used?
- What part of the Veratrum Viride is used, and whence is it obtained? What alkaloids does it contain? What is the physiological action of each? For what is the plant used, and what is its officinal preparation and its dose?

- From what plant is Veratria obtained? How is it prepared? What are its effects on the nose, skin, heart, circulation, and nervous system? What effect has it upon muscular contraction? For what purpose and in what form is it used?
- What are the sources, botanical and geographical, of Colchicum? What are the parts of the plant employed? What active principle do they contain? What are the officinal preparations? From what parts of the plant are they respectively derived? What are their doses? For what purposes are they used?
- What are their actions upon the digestive tract, liver, circulation, and tissue change?
- What is the officinal preparation of Filix Mas? How is it prepared? For what purpose is it used? How and in what dose would you administer it?
- What is Ergot? What is its appearance and chemical composition? What are its effects when it is largely contained in the food? What are its physiological actions? For what purposes is it used? What precautions are necessary in using it? What are its preparations? Mention a peculiarity in one of them. How are they to be given and in what doses?
- How is Cod Liver Oil prepared? How does it differ from other oils in composition? What chemical test is used to distinguish it? What are its uses? In what doses and in what ways would you administer it?
- What are Cantharides? Whence are they obtained? What active principle do they contain? What are the officinal preparations?
- What is their action upon the skin? What are the symptoms of poisoning? How would you treat them? For what purposes are they employed? Which preparation would you use internally, and in what doses would you give it? What precautions would you employ in using Cantharides externally or internally?

What two sorts of Leech are officinal, and how are they distinguished from one another? In what diseases are they used? How many would you generally employ in adults and in children? How would you make them bite? How would you remove them? How would you favour bleeding when desirable, or arrest it when excessive? What precautions would you take against their escape when applied to a mucous cavity? Should they be applied a second time?



GENERAL QUESTIONS ON MATERIA MEDICA.

Whence is

obtained?

Describe its preparation, giving formulæ.

What are its properties and the tests for its presence?

Name its chief impurities, and mention the sources whence they are derived.

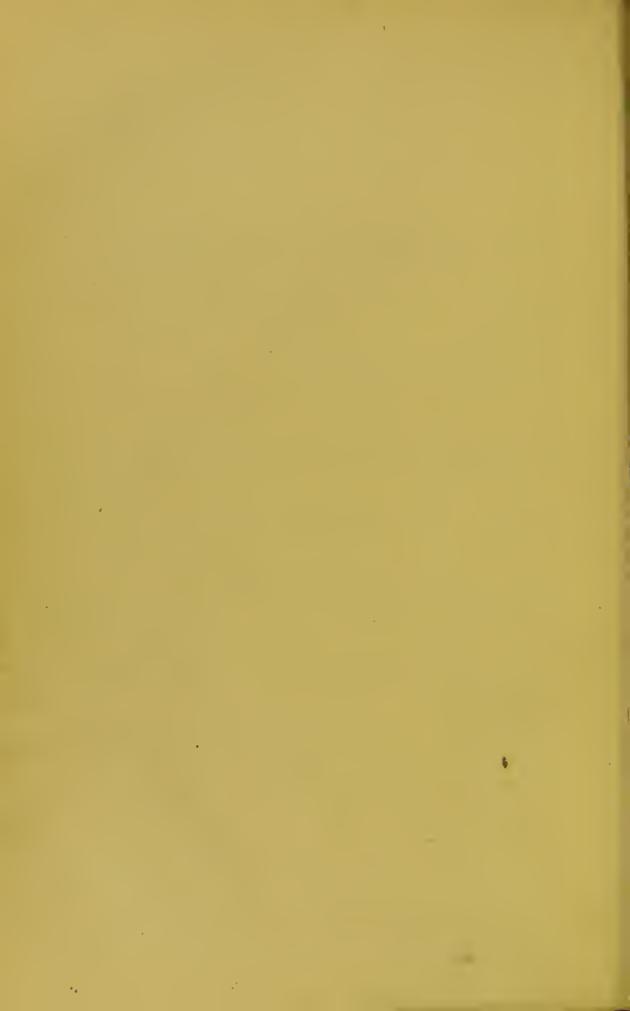
Describe the methods of detecting them.

What are the physiological actions of the drug?

What are its therapeutical uses?

Enumerate its officinal preparations.

Mention their doses.



TABLES OF MATERIA MEDICA

(INORGANIC)

Substance	Source	Preparation	Properties	Reactions
Oxygen.		Heating chlorate of potash with peroxide of manganese.	Colourless, tasteless gas.	•••
Ozone.	Oxygen.	Electric sparks through air.	Colourless gas, with character- istic odour.	Decomposes iodide of potassium.
Hydrogen.		Zine in hydrochloric acid.	Colourless, tasteless gas.	Burns with a blue flame, forming water.
CARBO LIGNI.	Wood.	Burning without access of air.	Black por- ous masses or powder.	
Cataplasma Carbonis.	Wood charcoal.	Charcoal ½, bread 2, linseed meal 1½, water 10.	•••	
CARBO ANI- MALIS.	Bones.	Burning without access of air.	Black pow-der.	
CARBO ANI- MALIS PURI FICATUS.	Animal charcoal.	Treating with hydrochloric acid, washing, drying, and heating to redness.		•••
SULPHUR SUBLIMA- TUM.	Native sul- phur or pyrites.	Subliming.	Bright yellow, gritty powder; no taste or smell.	
*Confectio Sul- phuris.	Sublimed sulphur.	4 to 1 of acid tartrate of potash and 4 of syrup of orange peel.		•••
*Unguentum Sul- phuris.	Ditto	Mix with benzo- ated lard, 1 in 5.		

				1	1
IMPURITIES	Source of Impurity	TESTS	Action	Use	Dose
			Slightlystimu- lant.	Failure of respiration.	***
			Stimulant and excitant.		
				Testing for sulphirous acid or arsenic.	
Too much ash.	Over burning of the wood.	Two per cent. of ash on incineration.	Antiseptic, antacid, ab- sorbent.	Dyspepsia, ulcers.	Teaspoonful to a table-spoonful.
•••	•••		Antiseptic, absorbent.	Ulcers, sloughing sores.	•••
			Precipitates colouring mat- ters and poi- sons from so- lutions. Condenses gases in its	Poisoning, dyspepsia, correcting fœtor.	½ to 2 ¾ as antidote, teaspoonful to a table-spoonful in dyspepsia.
			pores. Ditto	Ditto Decolorising solutions.	Ditto
Earthy matter. Sulphurous or sulphuric acid. Sulphide of arsenic.	Imperfect preparation. Oxidation during sublimation. From iron pyrites.	Volatility. No acidity to test paper. No residue on evaporation after agitation with ammonia.	Laxative, stimulant.	Cutaneous dis- eases, piles, bronchitis.	30 to 60 grs. laxative. 10 grs. or more sti- mulant.
			Ditto	Ditto	60 to 120 grs.
			Stimulant.	Cutanoous diseases.	

I				
SUBSTANCE	Source	Preparation	Properties	Reactions
SULPHUR PRÆCI- PITATUM.	Sulphide of calcium.	Sulphide formed by treating sulphur with slaked lime, and sulphur precipitated by hydrochloric acid.	Pale yellow powder.	
CHLORUM.	Hydrochlorie acid.	Heating with per- oxide of manga-	Heavy yel- lowish gas.	Bleaches litmus.
Liquor Chlori.	Chlorine.	nese. Passing into cold water.	Yellowish green li- quid.	Discharges colour of sulphate of indigo.
For Vapor Chlori see Calx Chlorata.				
IODUM.	Kelp.	Lixiviating and heating with sulphuric acid and peroxide of manganese.	Black crystals giving violet vapour.	
*Linimentum Iodi.	Iodine.	Dissolving in iodide		
		spirit, seenting with camphor; 1 in 9, nearly.		·
Liquor Iodi.	Ditto	Dissolving in iodide of potassium and water; 1 in 29.	•••	•••
*Tinctura Iodi.	Ditto	Dissolving in iodide of potassium and rectified spirit; 1 in 40.	•••	
Unguentum Iodi.	Ditto	Iodine with iodido of potassium, proof spirit, and prepared lard; 1 in 31.	•••	
Vapor Iodi.	Tincture of iodine.	1 fl. 3 to 1 fl. 3 of water.	•••	
Sulphuris Iodidum.	Iodine.	Heating with sulphur.	Greyish black, solid substance.	When boiled with water is decomposed and sulphur precipitated.
Unguentum Sulphuris Iodidi.	Ditto	Mixing with pre- pared lard, 1 in 19.	•••	***

Impurities	Source of Impurity	Tests	Action	Use	Dose
Sulphate of lime.	By using sul- phuric in- stead of hy- drochlorie acid.	No crystals under microscope. No residue on ig- nition.	Vide Sublim	ed Sulphur.	30 to 60 grs. laxative. 10 grs. or more sti- mulant.
Fixed salts. Deficiency instrength.		No residue on evaporation. Volumetrie test.	Stimulant, irritant, antiseptic. Ditto	Bronchitis, phthisis. Mouth and throat diseases.	 10 to 30 m.
Iodide of cyanogen. Water. Iron scales, &e.	Animaleula in the kelp. Fraudulently added. Ditto	No pungent odour or white crystals on heating. Bibulous paper. Complete sublimation.	Alterative, irritant, vesieant.	Scrofula, bron- ehoeele and glandular en- largements, hypertrophy and indura- tion, syphi- lis, rheuma-	From ½ gr.
	•••		Irritant, vesi- eant.	tism, gout; dropsy, leu- eorrhæa, skin diseases. Skin diseases, enlarged joints.	•••
•••	•••	•••	Vide 1	Iodine.	5 to 20 m.
•••	•••	•••	1	,	
•••			Vide Liniment of Iodine.		•••
***	•••		Alterative.	Bronehitis, phthisis.	•••
Deficiency of iodinc.	Imperfect pre-	100 grs. leave 20 of sulphur when	Ditto	Skin diseases.	$\frac{1}{2}$ to 2 grs.
•••		boiled in water.	Ditto	Ditto	•••

Substance	Source	Preparation	Properties	Reactions
ACIDUM SULPHURI- CUM.	Sulphur.	Combustion and oxidation by nitrous fumes.	Colourless, oily liquid.	White precipitate with chloride of barium, insoluble in boiling nitric acid.
*Acidum Sulphuri- cum Dilutum.	Sulphuric acid.	Diluting with about 11 parts water.		***
*Acidum Sulphuri- cum Aromati- cum.	Ditto	Diluting with about 13 parts spirit and adding cinnamon and ginger.	•••	
ACIDUM SUL- PHUROSUM.	Ditto	Heating with charcoal.	Colourless liquid with sulphurous odour.	Precipitate with chloride of barium when solution of chlorine is added.
ACIDUM HY- DROCHLO- RICUM.	Sulphuric acid and chloride of sodium.	Distilling into water.	Colourless, fuming li- quid, pun- gent odour.	White precipitate with nitrate of silver, soluble in solution of ammonia, insoluble in nitric acid.
*Acidum Hydro- chloricum Dilu- tum.	Hydrochloric acid.	Diluting with about 3 parts water.		
ACIDUM NITRICUM.	Nitrato of potash or soda.	Distillation with sulphuric acid.	Colourless or yellow- ish, fuming liquid, with character- istic odour.	Evolution of NO ₂ on introduction of copper.

Impurities	Source of Impurity	Tests	Action	Use	Dose
Organic matter. Mineral matter. Nitric acid. Lead.	Charring of eorks, &c. Imperfect preparation. Condensing chambers.	Free from colour. No residue on evaporation. No purple with sulphate of iron. No precipitate with sulphuretted hydrogen.	Caustic.	Cancer. Preparation of other acids.	
Arsenie.	Iron pyrites.	Ditto ·	Refrigerant, tonic, astrin- gent.	Sweating, diarrhœa, hæmorrhage.	5 to 20 m.
•••		 ,	Ditto .	Ditto	Ditto
Sulphuric acid. Mineral matter. Deficiency in strength.	Imperfect preparation. Imperfect preparation or long keeping.	No precipitate with ehloride of barium alone. Evaporation. Volumetric test.	Destroys vegetable life.	Vomiting and skin diseases, associated with parasitic fungi.	½ to 1 fl. 3.
Sulphuric acid. Arsenic. Sulphurous acid. Deficiency in strength.	Imperfect preparation. Impure sulphuric acid. Organic matter in crude NaCl causing deoxidation of H ₂ SO ₄ . Imperfect preparation.	No precipitate with chloride of barium. Does not tarnish copper foil. No evolution of sulphuretted hydrogen, tested by lead paper. Volumetric test.	Caustie.		•••
strength.	parauon.		Refrigerant, tonic.	Fevers, dys- pepsia.	10 to 30 m.
Peroxide of nitrogen. Mineral matter. Sulphuric aeid. Hydrochloric aeid. Deficiency in strength.	trate of soda.	Complete evaporation. Noppt. with ehloride of barium. No ppt. with ni-	Caustic.	Phagedænic sores, nævi, piles.	

Substance	Source	Preparation	PROPERTIES	REACTIONS
*Acidum Nitricum Dilutum.	Nitric acid.	Diluting with about 4 parts water.	•••	
**Acidum Nitro- hydrochloricum Dilutum.	Nitric and hydrochloric acids.	Mixing and diluting.	Colourless or yellow- ish liquid, with odour of chlorine.	
Acidum Phosphoricum Di- LUTUM.	Phosphorus.	Oxidation by nitric acid and dilution.	Colourless liquid.	Yellow precipitate with ammonio-nitrate of silver, soluble in ammonia and dilute nitric acid. Glassy residue on evaporation.
		·		
ACIDUM ACETICUM.	Wood.	Distillation and purification by converting into acetate of soda and distilling with sulphuric acid.	Colourless liquid with pungent odour.	
Acidum Aceti- cum Dilutum.	Acetic acid.	Diluting with about 8 parts water.	•••	
Oxymel.	Ditto	Mixing (5) with clarified honey (40) and water $(5) = 1$ in 10.		•••
Acetum.	Malt or un- maltedgrain.	Acetous fermentation.	Brown acid liquid.	

1	MPURITIES	Source of Impurity	Tests	Астюм	Use	Dose
	•••			Refrigerant, tonic.	Fevers, dyspepsia, liver derangement.	10 to 30 m.
(eficiency or excess in strength.	Imperfect pre- paration or exposure.	Volumetric test.	Ditto	Ditto	10 to 30 m.
L Sti	rsenic. ead. ulphuric acid. ydrochloric acid. itric acid. yrophos- phoric acid. letaphos- ploric acid. eficiency in strength.	Phosphorus. Retorts. Impure nitric acid. Ditto Imperfect preparation. Exposure to a great heat. Ditto Imperfect preparation.	No precipitate with sulphuret- ted hydrogen. Ditto No precipitate with chloride of barium. No precipitate with nitrate of silver and nitric acid. No dark colour with sulphuric acid and sul- phate of iron. No precipitate with perchloride of mercury. No precipitate with albumen. Volumetric test.	Refrigerant, tonic, astringent.	Thirst, sweating, hæmoptysis, phosphatic deposits in urine.	10 to 30 m.
St H	ead or copper. ulphuric acid. ydrochloric acid. ulphurous acid.	Containing vessels. Imperfect preparation. Deoxidation of sulphuric acid by organic matter	No precipitate with sulphuretted hydrogen. No precipitate with chloride of barium. No precipitate with nitrate of silver. No evolution of sulphuretted hydrogen with zinc and HCl.	Refrigerant, astringent.	Thirst, sweating, irritation of skin. Sore throat.	1 to 2 fl. 3.
Ex	cess of sul- bluric acid.	Careless or fraudulentaddition.	Volumetric test.			Ditto

SUBSTANCE	Q	S. T. D.		REAC	TIONS
	Source	Preparation	PROPERTIES	Generic	Specific
Acidum Aceticum Glaciale.	Acetato of soda.	Drying and distilling with sulphuric acid.	Colourless liquid at ord. temp., crystals at 34°.		
ACIDUM TARTARI- CUM.	Acid tartrate of potash.	Converting into tartrate of lime and decomposing by sulphuric acid.	Colourless crystals, soluble in water and alcohol.	White crystalline precipitate with acetate of potash.	
ACIDUM CITRICUM.	Lemon juice.	Converting to citrate of lime and decomposing by sulphuric acid.	Colourless crystals, soluble in water and alcohol, in- soluble in ether.		
ACIDUM HYDROCY- ANICUM DILUTUM.	Ferrocyanide of potassium.	Distillation with sulphuric acid.	Liquid, co- lourless, with pecu- liar odour.	Prussian blue, with solution of sulphate and persulphate of iron, potash, and HCl; precipitate with AgNO ₃ , soluble in boiling HNO ₃ .	
ACIDUM CARBOLI- CUM.	Coal tar.	Fractional distillation.	Colourless crystals, with strong odour and taste.	HCl turns blue. Coag	itmus. With deal greenish gulates albunot affect rays light.
Potassæ Car- Bonas.	Wood ashes.	Lixiviating, evaporating and crystallising.	White, cry- stalline or granular, deliques- cent, insolu- ble in spirit.	Precipitate with perchloride of platinum.	Effervescence with acids.
LIQUOR PO- TASSÆ.	Carbonate of potash.	Treating with slaked lime.	Clear liquid, caustic taste.	Ditto	No efferves- cence with acids.
			sido Ronzoin		

For Acidum Benzoicum vide Benzoin.

IMPURITIES	Source of Impurity	· Tests	Action	$\mathbf{U}_{\mathbf{SE}}$	Dose
Sulphurous acid. Water.	Deoxidation of H ₂ SO ₄ by organic matter in preparation. Fraudulent addition.	No evolution of sulphuretted hydrogen with zinc and HCl. Sp. gr. increased by water.	Caustic, vesicant.	Warts, corns, parasitic skin diseases.	•••
Lead. Oxalic acid. Lime. Mineral matter. Admixture of acid tartrate.	Crystallising vessels. Oxidation during preparation. Imperfect preparation.	No precipitate with SH ₂ . No ppt. with sulphate of lime. (No ppt. with oxalate of ammonia. Incineration. Volumetric test.	Refrigerant.	Thirst.	1 to 30 grs.
Copper or lead. Tartaric acid. Sulphuric acid. Mineral matter.	Containing vessels. Fraudulent addition. Imperfect preparation. Containing vessels.	No precipitate with SH ₂ . No ppt. with acetate of potash. No precipitate with BaCl ₂ . Incineration.	Ditto	Ditto	Ditto
Sulphuric acid. Hydrochloric acid.	Distils over in preparation. Unnecessarily added.	No precipitate with BaCl ₂ . Precipitate with AgNO ₃ , should be soluble in boiling HNO ₃ .	Sedative.	Vomiting, cough.	2 to 8 m.
		,	Antiseptic, sedative, in vomiting.	Wounds, operations, septic diseases.	1 to 3 grs.
Sulphates. Chlorides.	From the ashes. Ditto	No precipitate with chloride of barium. No precipitate with nitrate of silver.	Caustic, antacid.	Dyspepsia, lithiasis.	10 to 30 grs.
Carbonates. Lime. Alumina. Impurities of the carbonate. Deficiency of potash.	Imperfect preparation or absorption from the air. Imperfect preparation. From the carbonate. Imperfect preparation.	No effervescence with acids. No precipitate with oxalate of ammonia. No precipitate with ammonia. Tosts of the carbonate. Volumetric tests.	Caustic, antacid.	Lithiasis.	20 m to 1 fl. 3

Substance	Source	PREPARATION	Promission	REACTIONS		
		L REPARATION	Properties	Generic	Specific	
POTASSA CAUSTICA.	Liquor po- tassæ.	Evaporation.	White pencils, deliquescent, alkaline.	Precipitate with per- chloride of platinum.		
POTASSÆ BICARBO- NAS.	Carbonate of potash.	Passing carbonic acid gas into solution.	Colourless prisms, not deliques- cent.	Ditto	Effervescence with acids.	
*Liquor Potassæ Effervescens.	Bicarbonate of potash.	Saturating with carbonic acid gas.	Efferveseing liquid.	Precipitate with tartaric acid.	•••	
POTASSÆ ACETAS.	Carbonate of potash.	Dissolving in acetic acid.	White satiny masses, de- liquescent.	Ditto	Acetous smell with sulphuric acid. Red colour with ferric chloride.	
POTASSÆ CITRAS.	Carbonate of potash.	Neutralising with citric acid.	White powder, deliquescent.	Precipitate with per- chloride of platiuum.	Precipitate with chloride of calcium on boiling.	
POTASSÆ TARTRAS ACIDA.	Crude tartar or argol.	Treating with charcoal or clay.	White gritty powder very sparingly so- luble in water.	Ditto	Residue of carbonate on heating.	
Potassæ Tartras.	Acid tartrate of potash.	Neutralising with carbonate of potash.	Small 4-sided prisms, deliques- cent.	Precipitate of acid tartrate on adding acetic acid.	burnedsugar	
POTASSÆ SULPHAS.	Acid sulphate.	Neutralising with carbonate of potash or lime.	Colourless prisms.	Precipitate with per- ehloride of platinum.	Precipitate with ehloride of barium.	
POTASSÆ WITRAS.	Native.	•••	Striated colourless prisms.	Ditto	Evolution of nitric oxide with sul- phuric acid and copper.	

				1	
Impurities	Source of Impurity	Tests	Action	Use	Dose
Sulphates. Chlorides.	Imperfeet pre- paration. Ditto	No precipitate with chloride of barium. No precipitate with nitrate of silver.	Caustic.	Bites, fungoid growths, ab- scesses.	·
Carbonate.	Imperfeet pre-	No precipitate with sulphate of magnesia.	Antacid.	Lithiasis.	10 to 30 grs.
Deficiency of potash.	Imperfect pre- paration.	Volumetric test, specific gravity.	Refrigerant, antacid.	Thirst, lithiasis.	
Aeid. Carbonate Metallie impurities.	Imperfeet preparation. Ditto Impure acetic acid.	Test paper. Should be soluble in spirit. No colour with sulphide of ammonium.	Diuretic, purgative.	Rheumatism, skin diseases, dropsy.	10 to 60 grs. diuretic, 2 5 or more purgative.
			Antacid, diuretic, anti-scorbutie.	Rheumatism, scurvy.	20 to 60 grs.
More than a trace of tartrate of lime.	Imperfect preparation.	Turbidity but not ppt. with ammonia and oxalie acid.	Refrigerant, diuretie, purgative.	Fever, dropsy.	20 to 60 grs. diuretic, 2 to 4 3 pur- gative.
Acid tartrate. Carbonate.	Imperfect pre- paration. Ditto	Solubility in own weight of water. Incineration and volumetric test.	Antacid, purgative.	Lithiasis.	1 3 to 1 \(\bar{z} \).
Acid sulphate or carbonate.	Imperfect preparation. Ditto	Neutral to test paper. No precipitate with oxalate of ammonia.	Purgative.	Constipation, dyspepsia.	15 to 60 grs.
Sulphates.		No precipitate with ehloride of barium.	Refrigerant, diuretic, vas- cular seda-	Rheumatism, fever, dropsy.	5 to 30 grs.
Chlorides.		No precipitate with nitrate of silver.	tive.		

Substance	Source	Preparation	Properties	REACTIONS	
COBSTANCE		IREPARATION	I ROPERTIES	Generic	Specific
POTASSÆ CHLORAS.	. Carbonate of potash.	Treating with lime and chlorine.	Colourless crystalline plates.	Precipitate with PtCl ₄ .	Residue of chloride on heating.
Trochisei Potassæ Chloratis.	•••	•••	•••	***	
POTASSÆ PER- MANGANAS.	Chlorate of potash, caustic potash, and oxide of	Ignition together, boiling and neu- tralising.	Purple, slen- der prisms.	Precipitate' with PtCl ₄ .	Reduction to MnO ₂ and potash by heat. Decolorisation
*Liquor Pot. Per- manganatis.	manganese. Dissolving in water, 4 grs. in fluid oz.	 ·			by alcohol.
Potassa Sulphu-	Carbonate of potash and sulphur.	Heating together.	Solid green- ish frag- ments.	Precipitate with PtCl ₄ .	Evolves SH ₂ with acid.
Unguentum Po- tassæ Sulphu- ratæ.	Sulphurated potash.	Mix with prepared lard 1 part in 15½.		•••	• • •
POTASSII IODIDUM.	Potash and iodine.	Mixing and heating with charcoal.	Colourless opaque cu- bic crystals.	Precipitate with tartaric acid.	Blue colour to starch with chlo- rine.
- 7					
*Unguentum Po- tassii Iodidi.	Iodide and carbonate	Prepared lard 1 3, 64 grs. of iodide,	···	•••	•••
Linimentum Pot. Iod. cum Sapone.	of potash. Ditto	and 4 of carbonate. Mix with hard soap and oil of lemon and glycerine water 1 part in 10.		•••	
POTASSII BROMIDUM.	Potash and bromine.	As in the iodidc.	Colourless cubical crystals.	Precipitate with tar- taric acid.	Red colour with chloro- form and chlorine.
Sodn Chloridum.	Native.		White crystalline grains.	Yellow colour to flame.	Precipitate with nitrato of silver.

Impurities	Source of Impurity.	Tests	Action	Ușe	роse
Chloride of calcium.	Imperfect pre- paration. Ditto	No precipitate with AgNO ₃ . No ppt. with oxa-	Refrigerant, diuretic.	Low fevers, throat dis- eases.	10 to 20 grs.
•••	•••	late of ammonia.	•••	Ditto	
Sulphate of potash. Oxide of manganese	paration. Ditto	Solubility in cold water and volu- metric test. Ditto	Antiseptic, de- odoriser.	Disinfectant, septic dis- eases, ulcers, &c.	1 to 4 grs. internally.
•••			.Ditto	Ditto	2 to 4 fl. 3 internally. 1 fl. 3 in 5-10 fl. 3 water externally.
Too much sulphate.	Oxidation by exposure.	Solution in spirit, which does not dissolve sulphate.	Stimulant, dia- phoretic, expectorant. Stimulant.	Skin diseases, rheumatism, bronchitis. Skin diseases, rheumatism.	3 to 6 grs. in pills.
Free iodine, more than trace of.	Imperfect preparation.	No colour to starch.	Diuretic, em- menagogue, alterative.	Scrofula, glan- dular enlarge- ments, hyper-	2 to 10 grs.
Carbonato of potash. Chlorides.	Imperfect preparation. Fraudulently added.	Only faint ppt. with saccharine solution of lime. Ppt. with AgNO ₃ sol. in NH ₃ and not ppt. by		trophy. Syphilitic diseases, dropsy, amenorrhea, and lencorrhea.	
Iodate of potash.	Imperfect preparation.	HNO ₃ . No colour with tartaric acid and starch.	Alterative.	Syphilitic and glandular discases.	***
•••			Ditto	Skin diseases, glandular swellings.	•••
Iodide of potassium.	Impure bromine.	No colour to starch with chlorine.	Alterative, soporific.	Epilepsy, sleeplessness, nervous affec- tions, throat diseases, deli- rium tremens, convulsions.	5 to 60 grs.
			Mild alterative, emetic.	•••	* * *

SUBSTANCE	Source	PREPARATION	PROPERTIES	REACTIONS	
				Generic	Specific
Sodæ Carbonas.	Chloride of sodium.	Converting into sulphate and decomposing with coal and limestone.	Colourless laminar crystals.	Yellow colour to flame.	Effervescence with acids.
*Sodæ Carbonas Exsiccata.	Carbonate of soda.	By drying.	White pow-der.		
Liquor Sodæ.	Ditto	Treating with lime and water.	Clear liquid, alkaline.	Distinguished from liq. potassæ by giving no precipitate with PtCl ₄ or tartaric acid.	
SODA CAUSTICA.	Liquor sodæ.	Evaporation.	Hardgreyish white fragments or cakes.	Yellow colour to flame.	
SODÆ BI- CARBONAS.	Carbonate of soda and dried carbonate.	Treating with CO ₂ .	White opaque scales.	Ditto	Effervescence with acids.
*Liquor Sodæ Ef- fervescens.	Bicarbonate of soda.	Saturating sol. with CO ₂ .	Clear effer- vescing liquid.		
Trochisci Sodæ Bicarbonatis.	Each contains 5 grs.			•••	
Sodæ Acetas.	Carbonate of soda.	Treating with acetic acid.	Colourless crystals.	Yellow colour to flame.	
SODÆ CITRO-TAR- TRAS EFFER- VESCENS.	Bicarbonate of søda.	Heating with citric and tartaric acids.	Granular powder ef- fervescing in water		

					
Impurities	Source of Impurity	TESTS	Action	Use	Dose
Sulphates. Chlorides.	Imperfect pre- paration. Ditto	No ppt. with chloride of barium. No ppt. with nitrate of silver.	Caustic, ant- acid.	Dyspepsia, lithiasis.	10 to 30 grs.
			Ditto	Ditto	5 to 15 grs.
Lime.	Imperfect preparation. Imperfect preparation, or	No ppt. with oxa- late of ammonia after evapora- tion with HNO ₃ . No effervescence with acids.	Caustic, ant- acid.	Dyspepsia, lithiasis.	10 m to 1 fluid 3.
Sulphates. Chlorides. Deficiency of soda.	absorption from air. From the carbonate. Ditto Imperfect preparation.	No ppt. with chloride of barium. No ppt. with nitrate of silver. Volumetric test.			
Sulphates. Chlorides.	From the liquor sodæ.	No ppt. with chloride of barium. No ppt. with nitrate of silver.	Caustic.	Fungoid growths, abscesses.	•••
Carbonate of soda. Sulphates. Chlorides.	Imperfect preparation. From the carbonate. Ditto	White ppt. with perchloride of mercury. No ppt. with chloride of barium. No ppt. with ni-	Antacid.	Dyspepsia, lithiasis.	10 to 60 grs.
Deficiency of soda.	Imperfect pre- paration.	trate of silver. Volumetric test	Refrigerant, antacid.	Dyspepsia, J lithiasis, and thirst. Dyspepsia.	1 to 6.
Acetic acid. Sulphates. Chlorides.	Imperfect pre- paration. From the car- bonate. Ditto	Test paper. No ppt. with chloride of barium. No ppt. with nitrate of silver.	Mild diuretic.	Preparation of phosphate and arsenicate of iron.	,
	•••		Purgative, diuretic.	Constipation, lithiasis, dyspepsia.	60 grs. to ½ 3

Substance	Source	Preparation	D	Reactions	
SUBSTANCE	SOURCE	IREPARATION	PROPERTIES	Generic	Specific
SODA TAR- TARATA.	Carbonate of soda and acid tartrate of potash.	Mixing and crystallising.	Colourless right rhom- bic prisms.	Yellow colour to flame. Ppt. of acid t ash with ace	Charred by heating with H ₂ SO ₄ . artrate of pottic acid.
BORAX.	Native.		Colourless crystals.		Green colour to spirit flame.
*Mel Boracis.	Borax.	64 grs. to 1 \(\frac{1}{5}\).	•••		•••
*Glycerinum Boracis.	Ditto	1 \(\bar{z}\) to 4 \(\bar{z}\) of glycerine.	•••		•••
SODÆ SUL- PHAS.	Acid sul- phate left in the prepara- tion of HCl.	Neutralising with carbonate of soda and crystallising.	Transparent oblique prisms, ef- florescent.	Yellow colour to flame.	Precipitate with BaCl ₂ .
Sodæ Sulphis.	Carbonate of soda.	Saturating with SO ₂ .	White prisms. sulphurous odour.	Ditto	Evolves SO ₂ with acids.
Hyposulphite of Soda.	Sulphite of soda.	Heating with sulphur.	Large rhom- bic prisms.	Ditto	Evolves SO ₂ , and depo- sits S, with acids.
SODÆ NITRAS.	Native.		Colourless rhombohe- dral crys- tals.	Ditto	Evolves NO ₂ with copper and H ₂ SO ₄ .
SODÆ PHOSPHAS.	Bone ash and carbon- ate of soda.	Decomposing ash and neutralising with carbonate.	Colourless rhombic prisms.	Ditto	Yellow precipitate with AgNO ₃ , and renders liquor acid. Residue after ignition gives ppt. with BaCl ₂ soluble in HNO ₃ .

IMPURITIES	Source of Impurity	Tests	Action	Use	Dose
Acid tartrate of potash.	Imperfect preparation.	Solubility in cold water,	Purgative, diuretic.	Constipation, lithiasis, dyspepsia.	120 grs. to ½ 3 purgative, 30 to 60 grs.diuretic.
General.	Natural combination.	Volumetric test.	Diuretic, ant- acid, emmena- gogue, local sedative.	Dyspepsia, aphthæ, sore mouth or throat.	10 to 60 grs.
•••	•	•••	Local sedative.	Aphthæ, sore throat.	
	····		Ditto	Ditto	•••
Salts of ammonium. Salts of iron.	Salt cake.	No odour when heated with potash. No precipitate	Purgative, diuretic.	Constipation, biliousness, febrile con- ditions.	½ to 1 3.
Deficiency or excess of water.	Imperfect preparation.	when heated with potash. Volumetric test,			
•••			Antiseptic.	Sarcinous vo- miting, en- teric fever, septicæmia.	20 to 30 grs.
		•••	Ditto	Sarcinous vo- miting.	20 to 60 grs.
Sulphate of sodium, Chloride of sodium.	Natural combination. Ditto	No ppt. with chloride of barium. No ppt. with nitrate of silver.	Oxidiser.	In preparation of nitric acid.	
Phosphate of lime.	Imperfect pre- paration.	No turbidity in aqueous solution.	Purgative, diu- retic.	Constipation of children, uric acid diathesis.	½ to 1 3 purgative, 30 to 120 grs. diuretic.
	¥	c 2	}		•

SUBSTANCE	Source	PREPARATION	Properties	REACT	TONS
		c c	TROPERTIES	Generic	Specific
SODÆ HYPO- PHOSPHIS.	Hypophos- phite of lime.	Decomposing with carbonate of soda.	White granu- lar powder.	•••	
LIQUOR SODÆ CHLORATÆ.	Carbonate of soda.	Passing Cl through solution.	Colourless ai- kaline li- quid.		Evolution of Cl and CO ₂ with acids.
Cataplasma So- dæ Chloratæ.	Solution of chlorinated soda.	Mix with hot water and linseed meal 1 part in 7.			•••
LITHIÆ CAR- BONAS.	Native hydrate.	Dissolving in HCl and precipitating by carbonate of	White pow- der or mi- nute crys-	Crimson co- lour to flame.	Effervescence with acids.
Liquor Lithiæ Effervescens.	Carbonate of lithia.	ammonia. Saturating with CO ₂ .	tals. Effervescing liquid.	Carbonate of lithia on eva- poration.	
LITHIÆ CITRAS.	Carbonate of lithia	Dissolving in citric acid.	White amorphous powder, deliquescent.	Crimson colour to flame.	Carbonised by heat.
AMMONII CHLORI- DUM.	Ammonia in gas liquor.	Neutralising with hydrochloric acid and subliming.	Tough, colourless, inodorous masses.	Evolution of ammonia when heated with potash.	Precipitate with nitrate of silver.
Liquor Ammo- NIÆ Fortior.	Chloride of ammonium.	Decomposing by lime and dissolving gas in water.	Colourless liquid with pungent odour.		nity, negative tions.
Linimentum Camphoræ Compositum.	Strong solution of ammonia.	Mixing with spirit, camphor, and oil of lavender, 1 part			•••
Spiritus Ammo- niæ Fætidus.	Ditto	in 9. Mixing with rectified spirit and assafætida, 1 part in 10.			

Impurities	Source of Impurity	Tests	Acriox	Use	Dose
•••			Nervous tonic, stimulant, al- terative.	Nervous de- pression and debility.	5 to 10 grs.
Salts of potassium. Salts of lime	Imperfect preparation.	No precipitate with PtCl ₄ . No ppt. with oxa- late of ammonia.	Antiseptic, sti- mulant.	Disinfectant; fetid sores, malignant fevers.	10 to 20 m. ½ to 1 fl. 3 as gargle.
	•••	·	Stimulant.	Fetid sores.	
Lime.	Natural combination. Ditto	No ppt. with oxa- late of ammonia. No precipitate with lime.	Diuretic.	Gout, gravel, and renal calculus.	3 to 6 grs.
Deficiency of lithia.	Imperfect pre- paration.	Weight of residue.	Ditto	Ditto	5 to 10 fl. 3.
Chalk. General.	Fraudulently added	Weight of residue after ignition. Ditto	Ditto	Ditto Ditto	5 to 10 grs.
Iron. Lead,	Subliming pots. Condensing domes.	No red colour. Volatilising.	Alterative.	Rheumatism, chronic inflammations.	5 to 30 grs.
Lime. Carbonate of ammonia. Chloride of ammonium. Sulphate of ammonia. Sulphide of ammonium. Metallic impurities. Deficiency of		No ppt. with oxalate of ammonia. No precipitate with lime. No precipitate with chloride of barium. No ppt. with nitrate of silver. No ppt. with ammonio-sulphate of copper. No precipitate with sulphide of ammonium. Volumctric test.	Stimulant, ant- acid, expecto- rant, rubefa- cient, vesi- cant.	Syncope, dyspepsia, bronchitis, pneumonia, nervous diseases, fevers.	3 to 10 m.
ammonia.	paration.		Counterirri-	Bronchitis, &c.	•••
			Carminative.	Flatulence.	½ to 1 fl. 5.
	1	1	•	1	

SUBSTANCE	Source	Preparation	Properties	REACTIONS		
		Z RIFFRIGITOR		Generic	Specific	
LIQUOR AM- MONIÆ.	Liquor ammoniæ fortior.	Diluting with 2 parts of water.	Those of liquor ammoniæ fortior, but	Those of liqu	or ammoniæ	
*Linimentum Ammoniæ.	Liquor am- moniæ.	Mixing with olive oil, 1 part in 4.	weaker.	•••		
AMMONIÆ CARBONAS.	Chloride or sometimes sulphate of ammonium.	Sublimation with carbonate of lime.	Translucent crystalline masses.	Smell, volatility.	Effervescence with acids.	
*Spiritus Ammo- niæ Aromaticus.	Carbonate of ammonia and liquor ammoniæ.	Distilling together with oil of nutmeg, oil of lemon, rectified spirit, and water.				
LIQUOR AMMONIÆ ACETATIS.	Carbonate of ammonia.	Neutralising with acetic acid.	Colourless inodorous liquid.	Evolution of ammonia with potash.	Evolution o acetous vapours with sul- phuricacid	
Liquor Ammoniæ Citratis.	Liquor am- moniæ.	Neutralising with citric acid.	•••		•••	
Ammoniæ Ni- tras.	Liquor or carbonate of ammonia.	Neutralising with dilute nitric acid, and evaporating.	White deliquescent crystalline masses.	Evolution of ammonia with potash.	Evolution of nitrous fumes with sulphuric acid.	
Ammoniæ Phosphas.	Liquor am- moniæ.	Neutralising with phosphoric acid.	Colourless prismatic crystals	Ditto	Yellow pre- cipitate with nitra of silver.	
AMMONII BROMIDUM.	Ditto	Saturating with hydrobromic acid.	Colourless crystals:	Ditto	Yellowish- white pre- cipitate with nitrat of silver, sparingly soluble in ammonia.	

Impurities	Source of Impurity	Tests	Action	Use	Dose
•••			Vide Liquor Ammoniæ Fortior.		10 to 30 m.
			Rubefacient.	Bronchitis, &c.	
Fixed salts. Sulphate of ammonia.	Imperfect pre- paration. Imperfect pre- paration when from sul- phate.	Sublimation. No precipitate with chloride of barium.	Stimulant, ant- acid, expecto- rant, emetic.	Same as liquor ammoniæ.	3 to 10 grs., 30 grs. or more eme- tic.
Chloride of ammonium.	Imperfect preparation.	No precipitate with nitrate of silver	Ditto	Ditto	½ to 1 fl. 3.
•••			Diaphoretic, refrigerant.	Febrile conditions.	2 to 6 fl. 3.
Free ammo- nia. Free acid.	Imperfect pre- paration. Ditto	Test paper. Ditto	Ditto	Ditto	2 to 6 fl. 3.
Sulphates. Chlorides.	From the carbonate. Ditto	No precipitate with chloride of barium. No precipitate with nitrate of silver.	Ditto	In preparation of nitrous oxide.	
•••	•••		Diuretic.	Urinary cal- culi, gout.	5 to 30 grs.
Iodides.	Impure bro-	No colour to starch on addi- tion of chlorine.		Epilepsy.	2 to 20 grs.
Free bromine.	Decomposition by exposure.	No colour.			1

Substance	Source	PREPARATION	Ducas	REACTIONS		
	- CORES	I REPARATION	PROPERTIES	Generic	Specific	
Sulphide of Am- monium.			Yellow liquid; disagreeable smell.	•••	•••	
Chloride of Barium.	Carbonate of barium.	Dissolving in HCl.	Flat transparent scales.		•••	
CRETA PRÆ- PARATA.	Chalk.	Elutriation.	Whiteamorphous powder.	Solution in nitric acid gives ppt. with ammonia and oxalate of ammonium.	Effervescence with acids.	
Mistura Cretæ.	Prepared chalk.	With gum acacia syrup and cinuamon water.	•••	ammonium.	*	
**Pulvis Cretæ Aromaticus.	•••	11 parts in 48.	* * *	•••	•••	
*Pulvis Cretæ Aro- maticus c. Opio.		1 part opium in 40 of aromatic powder.	•••		•••	
CALX.	Chalk or limestone.	Calcining.	White masses absorbing water.	Solution gives ppt. with oxa- late of am-	No efferves- cence with acids.	
CALCIS HY- DRAS.	Lime.	Slaking with water.	White pow-	monia. Ditto	Ditto	
*Liquor Calcis.	Hydrate of lime.	Dissolving in water, decanting $\frac{1}{2}$ gr. in 1 fl. $\frac{\pi}{2}$.	der, alkaline.		•••	
*Liquor Calcis Saccharatus.	Hydrate of lime and sugar.	Dissolving in water, about 7 gr. in 1 fl. 3.	•••	•••	•••	
*Linimentum Calcis.	Liquor calcis.	Mix with olive oil, equal parts	***	•••		
CALCII CHLORI- DUM.	Carbonate of lime.	Neutralising with HCl.	White deliquescent masses.	Ditto	Precipitate with nitrate of silver.	
Calcis Carbonas Præcipitata.	Chloride of calcium.	Adding excess of carbonate of soda.	White crystalline powder.	Ditto	Effervescence with acids.	

IMPURITIES	Source of Impurity	Tests	Action	Use	Dose
			Depressant, sudorific, expectorant.	Chronic skin diseases, rheumatism. Reagent.	3 m or up- wards.
			Alterative.	Glandular diseases; reagent for sulphates.	$\frac{1}{2}$ gr. to 2 grs.
Salts of alumina. Salts of iron.	Impure chalk Ditto	(No precipitate with saccharated solution of lime.		Diarrhœa, dyspepsia.	
	•••			Ditto	
Alumina.	Found in chalk.		•••	•••	•••
	•••		Antacid, astringent.	Diarrhœa.	1 to 2 fl. \(\bar{z}.
Carbonate of lime. Salts of iron. Salts of alumina.	Imperfect preparation. From the chalk or limestone.	No effervescence with acids. No precipitate with saccharated solution of lime.	Antacid, astringent, desiccant.	Glandular diseases; reagent for sulphates.	
Ditto	Ditto	Ditto	Ditto	Ditto	•••
	•••	•••	Ditto	Ditto	$\frac{1}{2}$ fl. $\frac{1}{3}$ to 2 fl. $\frac{1}{3}$.
	•••		Ditto	Ditto	15 m to 1 fl. 5.
· · · · · · · · · · · · · · · · · · ·			Desiccant.	Burns.	•••
Hypochlorite of lime. Carbonate of lime. Salts of alu- mina. Salts of iron.	Imperfect preparation. Ditto Impure carbonate. Ditto	No evolution of Cl with HCl. Solubility in water and spirit. No precipitate with lime water.	Absorbent of water.	Glandular diseases; pharmaceuti- cal test for citrates.	10 grs. or more.
Chloride. Salts of alumina. Salts of iron.	Imperfect preparation. Impure chloride. Ditto	No ppt. with nitrate of silver. No precipitate with saccharated solution of lime. Ditto	Same as chalk.	Same as chalk.	10 to 60 grs.

Substance	Source	PREPARATION	PROPERTIES	REACTIONS		
			T HOT EXTINS	Generic	Specific	
CALCIS PHOS- PHAS.	Bone-ash.	Dissolving in HCl and precipitating with ammonia.	White amorphous powder.	Ppt. with oxalate of ammonia.	Precipitate with Fe ₂ Cl ₆	
CALCIS HYPO- PHOSPHIS.	Phosphorus and lime.	Heating together.	White pearly crystals.	Ditto after ignition.	Ignition; evolution of phosphoretted hydrogen.	
CALX CHLO- RATA.	Hydrate of lime.	Saturating with chlorine.	Dull white powder.	Oxalic acid gives precipitate.	Oxalic acid evolves Cl.	
Liquor Calcis Chloratæ.	Calx chlorata and water.	Digesting in water, 1 lb. in 1 gallon.			•••	
Vapor Chlori.	Calx chlorata.	2 3 moistened with water.		•••	•••	
ALUMEN, i.e. sulphate of alumina and ammonia.	Alum schist, i.e. sulphide of iron and alumina.	Burning, exposing, and adding am- monia.	Colourless octahedra.	White ppt. with KHO or NaHO; evolution of ammonia on heating.	Precipitate with chlo- ride of ba- rium.	
Alumen Exsic- catum.	Alum.	Drying at a moderate heat.	White spongy mass or powder.	Ditto	Ditto	
CERII OXA- LAS.	Cerium salts obtained from cerite.	Precipitating by oxalate of ammonia.	White gra- nular pow- der.	Solution of ash in HCl gives white crystalline ppt. with sulphate of potash.	Boiling with KHO, and adding acetic acid and chloride of calcium.	
MAGNESIÆ SULPHAS.	Dolomite, i.e. carbonate of magnesia and lime.	Treating with $ m H_2SO_4$.	Minute co- lourless rhombic prisms.	Precipitate with ammonia, chloride of ammonium, and phosphate of soda.	Precipitate with BaCl ₂ .	

IMPURITIES	Source of Impurity	Tests	Action	Use	Dose
Carbonates Magnesia.	Present in bone-ash. Ditto	No effervescence with acids. No white ppt. with ammonia solution.		Rickets.	10 to 60 grs.
			Nervous tonic, alterative.	Phthisis, nervous depression.	5 to 10 grs.
Deficiency of chlorine.	Imperfect preparation.	Volumetric test.	Disinfectant; pharmaceutical.	Disinfectant; preparation of chloroform.	•••
•••		•••	Disinfectant.	•••	
			Ditto	Fetid ulcers of mouth or throat, fetid bronchitis.	•••
Sulphate of iron.	Present in the schist.	No blue colour with ferrocya- nide or ferrid- cyanide of po- tassium.	Astringent, in large doses purgative, escharotic.	Sore throat, leucorrhœa, ophthalmia, hæmorrhages.	10 to 20 grs. astringent. 30 to 60 grs. purgative.
Ditto	Ditto	Ditto	Escharotic.	•••	
Other oxalates. Alumina.	From the cerium salts. Ditto	Ash completely soluble in acid without effervescence. No ppt. with chloride of ammonium.	Sedative, nervine tonic.	Vomiting of pregnancy.	1 to 2 grs.
Sulphate of lime. Iron.	Imperfect preparation. From the do- lomite. Ditto	No ppt. with oxalate of ammonia. No brown precipitate with chlorinated lime or soda. Volumetric test.	Saline, purgative, diuretic.	Constipation, biliousness, febrile conditions.	120 grs. to ½ 5; from 60 grs. in combination as purgative. 20 to 60 grs diuretic.

Substance	Source	PREPARATION	PROPERTIES	REACTIONS		
				Generic	Specific	
Enema Magnesiæ Sulphatis.	Sulphate of magnesia 1 5, ol. olivæ 1 fl. 3, amyli mucilag. 15 fl. 3.					
MAGNESIÆ CARBONAS.	Sulphate of magnesia.	Precipitating with Na ₂ CO ₃ in hot concentrated solution.	White granular powder.	Solution in acids gives ppt. with ammonia, chloride of ammonium, and phosphate of soda.	Effervescence with acids.	
MAGNESIÆ CARBONAS LEVIS.	Sulphate of magnesia.	Like the heavy carbonate, but using cold dilute solutions.	Very light powder.	Ditto	Ditto	
*Liquor Magnesiæ Carbonatis.	Carbonate of magnesia.	Saturating with CO_2 .	Clear, slight- ly efferves- cent liquid.	Residue gives carbonate.	those of the	
LIQUOR MAGNE- SLÆ CITRATIS.	Carbonate of magnesia.	Dissolving in citric acid, adding syrup of lemons and bicarbonate of potash.	Clear liquid, agreeable acid taste.		•••	
MAGNESIA.	Carbonate of magnesia.	Decomposing by heat	White pow-der.	Soln. in acids gives ppt. with ammonia solution, chloride of ammonium, and phosphate of soda.	No efferves- cence with acids.	
MAGNESIA LEVIS.	Light carbonate of magnesia.	Decomposing by heat.	White pow- der, lighter than mag- nesia.	Those of	magnesia.	
CADMII IODIDUM.	Cadmium and iodine.	Direct combination.	Flat pearly, micaceous crystals.	Yellow ppt. with sul- phuretted hydrogen or sulphide of ammoni- um, soluble in excess; white pre- cipitate with KHO, insoluble in excess.	Evolution of iodine by heat.	

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Impurities	Source of Impurity	Tests	Action	Use	Dose
		•••	Purgative.		
Sulphates. Lime. Metallic impurities.	Imperfect preparation. From the sulphate. Ditto	Soln. in HCl gives no ppt. with BaCl. No ppt. with ammonia solution and oxalic acid. No ppt. with ammonia solution and sulphuret-	Antacid, saline, purgative.	Dyspepsia, constipation.	10 to 20 grs. antacid. 20 to 60 grs. purgative.
** definition on	l.	ted hydrogen.			
Same as t	he carbonate.	•••	Ditto	Ditto	Ditto
Deficiency.	Imperfect preparation.	Volumetric test.	Ditto	Ditto	1 to 2 fl. 3.
	•••		Saline, purgative.	•••	5 to 10 fl. \(\frac{7}{5}\).
Carbonate of magnesia. Lime. Sulphates.	Imperfect preparation. From the carbonate. Ditto	No effervescence with acids. No ppt. with oxalate of ammonia. No ppt. with chloride of barium.	Antacid, laxa- tive, purga- tive.	Dyspepsia, constipation.	10 to 20 grs. antacid. 20 to 60 grs. purgative.
	1				
	Those of magne	sia.	Ditto	Ditto	Ditto
Zinc. General impurity.	Present in the cadmium.	White precipitate with KHO, soluble in excess, re-pptd. from filtrate by sul phide of ammonium. Volumetric test.	Rubefacient.		•••
		•			

Substance	Source	Preparation	.Properties	REACTIONS		
	SOURCE	1 REPARATION	FROPERTIES	Generic	Specific	
*Unguentum Cadmii Iodidi.	•••	Mix with simple ointment, 1 in 8.				
GRANULATED Zinc.	Zinc.	Fusing and pouring into water.	Bluish white masses.	Solution gives white precipitate with sul- phide of ammonium.	Dissolves in acids with evolution of hydrogen.	
ZINCI CHLORI- DUM.	Zinc.	Dissolving in hydrochloric acid, removing iron by chlorine and carbonate of zinc, and evaporating.	Colourless, opaque rodsor ta- blets, deli- quescent.	White precipitate with sulphide of ammonium; acid solution not precipitated by sulphuretted hydrogen.	Precipitate with ni- trate of silver.	
*Liquor Zinci Chloridi.	Ditto	Ditto, but not evaporated.	•••			
ZINCI SUL- PHAS.	Ditto	Dissolving in sulphuric acid, purifying as in the case of the chloride.	Colourless, transparent prisms.	Ditto	Precipitate with chloride of barium.	
Zinci Carbonas.	Sulphate of zinc.	Precipitating with carbonate of soda.	Soft white powder.	Ditto	Effervescence with acids.	

Impurities	Source of Impurity	Tests	Action	Use	Dose
•••	•••		Rubefacient.	Swelled glands.	
Sulphur.	Present in the zinc. Ditto	Evolution of SH. when dissolved in acid. Stain on porcelain held in flame of hydrogen evolved.		Pharmaceutical.	
Sulphates. Iron. Chloride of calcium.	From the carbonate or hydrochloric acid. Imperfect preparation.	No precipitate with chloride of barium. No blue precipitate with ferrocyanide of potassium. No precipitate with oxalate of ammonia.	Antiseptic, escharotic, irritant, astringent.	Cancers, ulcers, nævi.	•••
			Ditto	Ditto .	***
Sulphate of iron. Lead, arsenic, cadmium. Copper.	Imperfect pre- paration. Impure zinc. Ditto	No colour with tincture of galls. Acid solution not precipitated by sulphuretted hydrogen. After boiling with HNO ₃ the ppt. with NH ₃ is completely soluble without colour in excess of NH ₃ .	Externally astringent. Internally, emetic, nervine tonic, astringent.	Wounds, ulcers, mucous discharges, &c. poisoning, chorea, epilepsy, hysteria, sweating.	1 to 10 grs. externally. 10 to 30 grs. emetic. 1 to 5 or 10 grs. tonic.
Sulphates. Chlorides. Copper.	Imperfect preparation. Impure carbonate of soda. Impure sulphate of zinc.	No precipitate with chloride of barium. No precipitate with nitrate of silver. No colour, and complete solu- bility in reagent of precipitate with nitric acid and ammonia.	Internally, tonic, astrin- gent. Externally,de- siccant, as- tringent; less irritating than sulphate.	Ditto Excoriations, eczema, &c.	l to 10 grs. or more.

Substance	Source	Preparation	Properties	REAC	TIONS
		INSPARATION	1 ROPERTIES	Generic	Specific
ZINCI OXI- DUM.	Carbonate of zinc.	Heating.	Soft powder, nearly white or yellowish.	White precipitate with sulphide of ammonium; acid solution not	No efferves- cence with acids.
-100	L . L	Υ		precipitated by sulphu- retted hy- drogen.	
*Unguentum Zinci.	Oxide of zine.	Mixing with ben- zoated lard, 1 in 6½.		•••	•••
Zinci Acetas.	Carbonate of zinc.	Dissolving in acetic acid.	Thin, trans- lucent, co- lourless crystalline plates, with pearly lus- tre.	Ditto	Evolution of acetic acid on addition of sulphuric acid.
CUPRI SUL- PHAS.	Copper pyrites or copper.	Roasting pyrites and dissolving out the sulphate, or heating copper and sulphuric acid together and dissolving out the sulphate.	Blue acid crystals.	Maroon red with ferro- cyanide of potassium.	Precipitate with chlo- ride of ba- rium.
Subacetate of Copper.	Copper.	Treating with acid tartrate of potash (argol) or acetic acid.	Powder or minute crystals.	Light blue precipitate with ammonia.	Evolution of acetic acid with sulphuric acid.
Solution of Acetate of Copper.	Subacetate of copper.	Digesting with acetic acid and dissolving in boiling water.			
HYDRARGY- RUM.	Cinnabar.	Roasting with lime.	Liquid metal.	•••	
Linimentum Hydrargyri.	Ointment of mercury.	Gently heat with camphor liniment and ammonia; 1 part mercury in 9.		*	

	Impurities	Source of Impurity	Тезтз	Астюм	Use	Dose
	Carbonate of zinc. Sulphates. Chlorides.	Imperfect proparation. Impure carbonate. Ditto.	Effervescence with acids. No precipitate with chloride of barium. No precipitate	Externally, desiceant, astringent; less irritating than sulphate.	Wounds, ulcers, mucous discharges, &c. poisoning, excoriations, eczema, &c.	1 to 17 grs. or more.
	Copper.	Ditto.	with nitrate of silver. Colour and solubility in reagent of precipitate with nitric acid and ammonia.	Internally, tonic, astringont.		
	***	4	•••	Desiceant, as- tringent.	Excoriations, eczenia, &c.	***
	Th	ose of the carbon	ate.	Same as	sulphate.	1 to 2 grs. tonic. 10 to 20 grs. emetic. 1 to 10 grs. or more in 3j. of lotion.
	Sulphate of iron.	From the pyrites.	Colour and solubility in excess of reagent of precipitate with chlorine and ammonia.	Internally emetic, as- tringent, ner- vine tonie. Externally, es- charotic, sti- mulant, as- tringent.	Same as sulphate of zinc.	tonic, and to to 8 grs. emetic, 1 to 10 grs. externally in \$\overline{5}\$, of lotion.
	Chalk. Sulphate of copper.	Fraudulently added. Ditto.	Effervoscence with acids. No precipitate with chloride of barium.	Escharotic.		•••
	•••			Ditto.	Test for butyric acid in valerianate of zinc.	
	Lead, ! tin, &c.	From the cinnabar.	Complete volatility.	Alterative.	Syphilis, biliousness, rheumatism,	
	•••			Stimulant.	inflammation, dropsy. Swelling around joints, &c.	
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SUBSTANCE	Source	Preparation	D	REAC	rions
		1 REPARATION	PROPERTIES	Generie	Specific
**Unguentum Hy- drargyri.	Mercury.	With lard and suet, 1 part in 2.	,		•••
Unguentum Hy- drargyri Com- positum.	Ditto.	With yellow wax and olive oil, 1 part in 4½.	 M	***	
*Emplastrum Hy- drargyri.	Ditto.	Mix with oxide of lead, olive oil, sublimed sulphur, 1 part in 3.	· • • • • • • • • • • • • • • • • • • •	•••	
Emplastrum Ammoniaci cum Hydrargyro.	Ditto.	Mix with ammo- niacum, olive oil, sublimed sulphur, 1 part in 5.		•••	,
**Hydrargyrum cum Creta.		Rubbing with chalk, 1 part in 3.		Residue of mercury when dis- solved in HCl.	Effervescence with acids and precipitate with acetate of ammonia
**Pilula Hydrar-	Ditto.	Mixing with con-			(chalk).
gyri.	Ditto.	fection of roses and liquorico root, 1 part in 3.	•••	***	•••
Suppositoria Hydrargyri.	Ditto.	Mixing mercurial ointment with wax, and oil of theobroma, 1 part in 6.			·
Hydrargyri Sulphas.	Ditto.	Dissolving in hot ${ m H_2SO_4}$ and drying.	White crystalline, heavy powder.	Converted into yellow subsulphate by water.	•••
HYDRAR- GYRI SUB- CHLORI- DUM.	Mercury and sulphate of mercury.	Rubbing together with chloride of sodium and sub- liming.	Dull-white, heavy powder.	Black when digested with potash.	With potash and nitrate of silver gives preci- pitate.
*Lotio Hydrargyri Nigra.	Subchlorido of mercury.	Mixing with solution of lime, 18 grs. in 10 3.		1	
Unguentum Hy- drargyri Sub- chloridi.	Ditto.	Mix with prepared lard, 1 part in $6\frac{1}{2}$.	•••	•••	

			· · · · · · · · · · · · · · · · · · ·			
	Impurities	Source of Impurity	Tests	Action	Use	Dose
	•••	•••	···.	•••	Vido Hydrar- gyrum.	•••
	•••			•••	Ditto.	•••
	•••				Ditto.	•••
	٠			•••	Ditto.	•••
	Oxide of mercury.	Exposure.	Solution in HCl and precipitate with solution of chloride of tin.	•••	Diarrhea in children, vide also Hydrargyrum.	3 to 8 grs.
	 = ·				Vide Hydrar-	3 to 8 grs.
				···	Ditto.	
	Sulphates of lead, &c.	Impure mercury.	Complete volatility.		Pharmaceutical.	
	Corrosive sublimate. Chlorides of lead.	Imperfect pre- paration. Impure mer- cury.	Insolubility in cther. Complete volatility.	Alterative, cho- lagogue, pur- gative.	Vide Hydrar- gyrum.	2 to 5 grs. purgative, ½ to 1 gr. otherwise.
	ean	· ,		•••		
		•••				
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SUBSTANCE	Source	D	7	REAC	TIONS
- CODSTANCE	SOURCE	PREPARATION	PROPERTIES	Generic	Specifie
*Pilula Hydrargyri Subchloridi Composita.	Subchloride of mercury.	Mixing with sul- phuretted anti- mony, guaiacum resin and castor oil, 1 part in 5.			
HYDRAR- GYRI PER- CHLORI- DUM.	Sulphate of mercury.	Triturating with chloride of sodium and black oxide of manganese, and subliming.	Heavy, colourless masses of prismatic crystals.	Yellow precipitate with potash, white precipitate with am-	Precipitate with nitrate of silver.
Lotio Hydrargyri Flava.	Perchloride of mercury.	Mixing with solution of lime, 18 grs. in 10 fluid 3.	***	monia.	•••
*Liquor Hydrar- gyri Perchloridi.		Dissolving in water with chloride of ammonium, ½ gr. in 1 fluid 3.	•••	•••	•••
Liquor Hydrar- gyri Nitratis Acidus.	Mercury.	Dissolving in cold dilute nitric acid, and boiling.	Colourless, strongly acid liquid.	Yellow pre- cipitate with excess of potash.	Dark colour to liquid by sulphate of iron.
Unguentum Hydrargyri Nitratis.	Nitrate of mercury and free ni- tric acid.	Prepared lard and olive oil, 1 in 15½.	Yellow co- lour.	···	
HYDRARGYRI OXIDUM FLAVUM.	Perchloride of mercury.	Precipitating solution with solution of soda.	Yellow powder.		Evolution of oxygen by heat leaving a residue of mercury.
HYDRARGYRI OXIDUM RUBRUM.	Mercury and nitrate of mercury.	Triturating together and heating.	Orange red powder.	***	Ditto.
**Unguentum Hydrargyri Oxidi Rubri.	Redoxide of mercury.	Mix with yellow wax and almond oil, 1 in 8.	•••		•••
HYDRARGY- RUM AMMO- NIATUM.	Perchloride of mercury.	Precipitating with ammonia.	Opaque, whito pow- der.	Globules of mercury when boiled with solution of chloride of tin.	With potash it evolves ammonia; precipitate with nitrate of silver.

IMPURITIES	Source of Impurity	Tests	Acrion	Use	Дозв
		***		Chronic rheu- matism and syphilis.	5 to 10 grs.
Fixed salts.	Condensing chambers.	Complete volatility.	Alterative, sialagogue, caustic, antiseptic.	Vide Hydrar- gyri.	1/20 to 1/4 gr.
•••	•••	***	Caustic.	•••	•••
•••				•••	⅓ to 2 fluid g
Subnitrate of mercury.	Imperfect preparation.	No precipitate when dropped into dilute HCl.	Caustic.	Cancer, lupus.	•••
	•••	•••	Stimulant.	Eye diseases.	•••
Fixed salts.	Impure per- chloride.	Complete volatility.		•••	
Brick dust, Red lead. Nitrato of mercury.	added.	Ditto. Eyolution of nitric acid by heat.	Irritant, escharotic.	Ophthalmia, ulcers, ex- crescences.	
•••	•••		Ditto.	Ditto.	
Fixed salts.	Impure per- chloride,	Complete volatility.	Escharotic.	Pediculi.	
				•	•

Substance	Source	Preparation	Properties	REAC	rions
CODSTANCE	SOURCE	I REPARATION	LIGIBITES	Generic	Specific
*Ungnentum IIy- drargyri Am- moniati.	Ammoniated mercury.	Mix with simple ointment, 1 in 8.	•••		•••
HYDRARGYRI IODIDUM VIRIDE.	Mercury.	Rubbing with iodine.	Yellow or dull green powder.	Sublimate of p	periodide when
HYDEAE- GYRIODI- DUM RU- BRUM.	Perchloride of mercury.	Precipitating hot solution with KI.	Searlet crystalline powder.	Reddish brown when digested with soda.	Blue preeipitate with starch and nitrie acid.
Unguentum Hydrargyri Iodidi Rubri.	Red iodide of mercury.	Mix with simple ointment, 1 part in 28.	•••	*	
Hydrargyrum Sulphuretum.	Mercury.	Triturating with sulphur.			
ARGENTUM PURIFICATUM.	Silver.		White metal.		
ARGENTI NITRAS.	Purified silver.	Dissolving in nitrie acid.	Colonrless tabular crystals or white pen- cils.	White pree HCl. solubl nia. Residue of silverwhen heated on charcoal with a blow-pipe.	ipitate with e iu ammo-
Argenti Oxidum.	Nitrate of silver.	Precipitating solution with limewater.	Olive brown powder.	Residuc of si lution of ox	lver and evo- ygen by heat.
Solution of Chloride of Gold.	Gold.	Dissolving in nitro- hydrochloric acid, drying, and dis- solving chloride in distilled water.	Clear orange coloured liquid.		• • •
Solution of Per- chlorido of Platinum.	Platinum.	Dissolving in nitro- hydrochloric acid, drying, and dis- solving chloride in distilled water.			•.•

	IMPURITIES	Source of Impurity	Tests	Action	Usu	Dose
-	•••	***		Escharotic and stimulant.	Skin discasos, pediculi.	
-	Periodide of mercury.	Exposure to light.	Solubility in ether.	Alterative, purgative.	Skin disoases.	1 to 3 grs.
-	Fixed salts.	Impure per-	Complete volutility.	Alterative, irritant, caustic, antiseptic.	Vide Hydrar- gyrum. Goitre.	$\frac{1}{16}$ to $\frac{1}{4}$ gr.
	•••	•••	·	Irritant.	Syphilis, glan- dular diseases	•••
	•	***	••	Alterative.	Syphilis, venereal sore throat.	
	Copper. Lead.	Imperfect purification. Ditto.	Colour with ammonia to nitric acid solution. Turbidity with ditto.		Preparation of nitrate of silver.	
	Nitrates of potash, &c.	Added fraudulently or to make it less brittle.	Complete evaporation of filtrate after precipitating with HCl. Volumetric test.	Irritant, vesi- eant, eschar- otic, astrin- gent, altera- tive.	Wounds, ulcers, skin discases, gastrie affec- tions, diar- rhea, epi- lepsy. Test for chlo- rides.	½ to ½ gr.
	Metallic silver. General im- purities.	Too much heat in drying.	Evolution of gas when dissolved in nitric acid. Volumetric test.	Ditto.	Hæmorrhage; also vide Nitrate.	½ gr. to 2 grs.
	100	•••	•••	Gives a yellow precipitate with alkaloid atropine.	To distinguish alkaloid atropine.	•••
	•••			Gives a yellow and rather insolublo precipitate with potash, yellow precipitate with ammonium, yellowish whito procipitato with nicotine.	To distinguish betweeen potash and soda salts, also to detect nicotine.	•••

				Read	ETIONS
SUBSTANCE	Source	PREPARATION	PROPERTIES	Generic*	Specific
Granulated Tin.	•••	•••	•••		•••
Solution of Chloride of Tin.	Tin.	Warming with HCl and adding distilled water.			
PLUMBI OXI- DUM.	Load,	Heating in a current of air and fusing.	Brick red heavy scales.	Solublo in ace- tic acid and gives yellow precipitate with iodide of	•••
*Emplastrum Plumbi.	Oxide of lead.	Heating with olive oil.		potassium.	
PLUMBI ACETAS.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Dissolving in dilute acetic acid.	White crystalline masses	Yellow ppt. with iodide of potas- sium.	Precipitate and libera- tion of ace- tic acid
Unguentum Plumbi Acetatis.	Acetate of lead.	Mix with benzoated lard, 1 in 37½.	efflorescent.	•••	with H ₂ SO ₄ .
Pilula Plumbi cum Opio.	Acetate of lead and opium.	Mixing with confcetion of roses, 3 grs. acetate and ½ gr. of opium in 4 grs.	•••		
Suppositoria Plumbi Com- posita.	Acetate of lead.	Mixing with wax and oil of theobroma, 3 grs. acetate and 1 gr. opium each.			
Liquor Plumbi Subacetatis.	Ditto.	Boiling in water with oxide of lead.	Dense, co- lourless al- kaline li- quid, as- tringent; sweet taste.	White ppt. with sul- phuric acid.	Liberation of acetic acid with H ₂ SO ₄ . White jelly with gum acacia.
*Liquor Plumbi Subacetatis Dilutus.	Solution of subacotate of lead.	Solution of subace- tate and rectified spirit, each 1 part, water 38 parts = 1 in 40.	***		
*Unguentum Plumbi Sub- acetatis Com- positum.					

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	IMPURITIES	Source of Impurity	TESTS	Астюя	Use	Dose
	•••	•••	•••	•••	•••	•••
	•••			Reduces salts of mercury, silver, gold, &c., to their metallic state.	Principally to test mercury compounds.	•••
	Carbonates.	Absorption from the air. Impure lead.	Effervescence with acids. Blue colour by ammonia to nitric acid solu-	Astringent.	To make plaster.	
	•••		tion.	Ditto.	Wounds, ulcers, frac- tures, &c.	•••
	Carbonate.	Exposure to air.	Turbidity of aqueous solution.	Sedative, astringent.	Hæmorrhage, diarrhæa, dysentery, phthisis, skin	grs. to 3
	***	•••		Ditto.	diseases. Skin diseases and inflam- mations.	***
				Astringent, sedative.	Hæmorrhage, diarrhæa, dysentery, phthisis.	4 to 8 grs.
		•••		Ditto.	Ditto.	•••
	Deficiency of subacetate.	Imperfect pre-	Volumetric test.	Ditto.	Skin affections, inflammations.	
	***	•••	•••	Ditto.	Ditto.	***
	•••	•••		Ditto.	Ditto.	• • •
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SUBSTANCE	Source	Preparation	D	REAC	TIONS
	DOUNCE	I REPARATION	Properties	Generic	Specific
FERRI SUL- PHAS EXSIC- CATA.	Sulphate of iron.	Heating to 400° and pulvorising.	A whitish powder.		Those of
FERRI SUL- PHAS GRAN- ULATA.	Ditto.	Pouring hot solution into rectified spirit.	Greenish- blue granu- lar crystals.		Ditto.
FERRI CAR- BONAS SACCHA- RATA.	Ditto.	Precipitating with carbonate of am- monia and rub- bing precipitate with sugar.	Small co- herent lumps, grey colour.	Solution in HCl gives blue precipitate with ferridcyanide of potassium.	Effervesconce with acids.
*Pilula Ferri Car- bonatis.	Saccharated carbonato	4 parts carbonate to 1 confection of	***	•••	•••
*Mistura Ferri Composita (contains car- bonate of iron).	of iron. Sulphate of iron.	roses. By adding sulphate of iron to a soapy emulsion made by rubbing together carbonate of potash, myrrh, sugar, spirits of nutmeg, and rose-water.		÷••	
FERRI PER- CHLORIDI LIQUOR FORTIOR.	Iron wire.	Dissolving in HCl and oxidising with nitric acid.	Orange brown li- quid.	Blue precipitate with ferrocyanide of potassium.	Precipitate with AgNO ₃ .
**Liquor Ferri Perchloridi.	Strong solu- tion of per- chloride of	Diluting with 3 vols. of water.	Deep sherry- coloured liquid.	•••	
**Tinctura Ferri Perchloridi.	iron.	Diluting with 3 vols. of rectified spirit.	Ditto.	•••	
PERRI PER- NITRATIS LIQUOR.	Iron wire.	Dissolving in nitric acid and diluting.	Ditto.	Blue precipitate with ferrocyanide of potassium.	Dark brown with sulphate of iron and sulphuric acid.
LIQUOR FER- RI PERSUL- PHATIS.	Sulphate of iron.	Boiling solution with sulphuric and nitric acids.	Dense, dark reddish- brown li- quid.	Ditto.	Precipitate with BaCl ₂ .

IMPURITIES	Source of Impurity	Tests	Action	Use	Dose
the sulphate			Hæmatinic, astringent.	Anæmia, hæmorrhage.	½ gr. to 3 grs
Ditto.			Ditto.	Ditto.	1 gr. to 5 grs. or more.
Sulphate of anamonia. Oxide of iron	paration.	No precipitate with BaCl ₂ . Volumetric test.	Hæmatinic.	Anæmia.	5 to 20 grs. or more.
•••		•••	Ditto.	Ditto.	29
•••		•••	Ditto.	Anæmia, ame- norrhæa.	1 to 2 fl. 3.
Ferrous salts.	Imperfect pre- paration.	No precipitate with ferrideyan- ide of potas- sium.	Hæmatinie, astringent.	Anæmia, hæmorrhage, erysipelas.	3 to 10 m.
Weakness.	Ditto.	Sp. gr.: volume- tric test.	. Ditto.	Ditto.	10 to 40 m.
		•••	. Ditto.	27.00	20 00 20 11(1
	•••	•••	Ditto.	Ditto.	Ditto.
Ferrous salts.	Imperfect proparation.	No precipitate with ferridcyan- ide of potas-	Hæmatinic, astringent tonic.	Hæmorrhage, diarrhæa.	10 to 40 m.
General impurity of deficioncy.		sium. Volumetric test.			
	Ditto.	Ditto.	•••	Preparation of iron salts.	

Substance	9			Reac	TIONS
DUBSTANCE	Source	PREPARATION	Properties	Generie	Specifie
TINCTURA FERRI ACE- TATIS.	Solution of persulphato of iron.	Mixing with alcohol and acetato of potash.			Evolution of acetic acid with H ₂ SO ₄ .
FERRI PER- OXIDUM HUMIDUM.	Solution of persulphato of iron.	Adding to a solution of soda and washing.	Moist, red- dish-brown, pasty mass.	Solution in HCl gives blue precipitate with ferrocyanide of potassium.	
Ferri Peroxidum Hydratum.	Moist peroxido of iron.	Drying on a water bath.	Reddish- brown powder.	Ditto.	Gives off moisture when heat- ed.
*Emplastrum Ferri	Hydrated peroxide of iron.	Mix with lead, plaster and Burgundy pitch, 1 part in 11.	910		
Ferri Oxidum Magneticum.	Solution of proto- and persulphate of iron.	Precipitating with solution of soda and drying.	Brownish black.		with ferrocy- ferridcyanide
FERRUM REDAC- TUM.	Hydrated peroxido of iron.	Passing dry hydrogen gas over it when hot.	Greyish black pow- dor.	Solution in H precipitate anido of pot	with ferrocy-
*Trochisci Ferri Redacti.	Reduced iron.	1 gr. in oach.	•••	***	•••
FERRI IODI- DUM.	Iron wire.	Boiling with iodine in boiling water.	Green, cry- stalline, de- liquescent.	Blue precipitate with ferrocyanide of potassium.	Blue with mucilage of starch and chlorine.
**Syrupus Ferri Iodidi.	Iodide of iron.	Mixing with refined sugar, $4\frac{1}{2}$ gr. in 1 3.	•••	•••	•••
Pilula Ferri Iodidi.	•••	Mixing with refined sugar, liquorice root, and water, 1 gr. in 3.		•••	

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	Impurities	Source of Impurity	Tests	Action	Use	Dose
				Hæmatinic.	Anæmia.	5 to 30 m.
	Ferrous hydrate. Ferric-oxyhydrate.	Imperfect preparation. Imperfect preparation or long keeping.	No precipitate with ferridcyanide of potassium. Solubility in HCl without heat.	Antidote to arsenic.	Arsenical poisoning.	Ad libitum.
	Ferrous hydrate.	Impure moist peroxide.	No precipitate with ferridcya- nide of potas- sium.	Hæmatinic to-	Tic-douloureux;	10 to 60 grs.
		•••				
	Metalliciron. General impurity.	Heat above 190° in preparation.	Solubility with- out efforvescence in acids. Volumetric test.	Ditto.	Anæmia, de- bility.	5 to 10 grs.
	Too large proportion of oxide.	Imperfect pre- paration.	Volumetric test.	Ditto.	Ditto.	1 to 5 grs.
	•••		•••	Ditto.	Ditto.	1 to 6 grs.
				Hæmatinic, alterative.	Scrofulous discases, phthisis, rheumatic arthritis, syphilis.	1 to 5 grs.
	•••	•••		. Ditto.	Ditto.	2 m to 1 fl. 3.
	•••		•••	Ditto.	Ditto.	$3rac{1}{2}$ to $8~\mathrm{grs}$.
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SUBSTANCE	Source	PREPARATION	PROPERTIES	REA	CTIONS
				Generic	Specific
FERRI ARSENIAS.	Sulphate of iron,	Precipitating mixed solution of arseniate and acetate of soda with sulphate of iron and washing.	Green amorphous powder.	Blue precipit rocyanide a ide of potas	ates with fer- nd ferridcyan- sium. Brick red precipitato with AgNO ₃ after boil- ing with caustic, soda, and neutralis- ing.
FERRI PHOS- PHAS.	Ditto.	Precipitating a mixed solution of phosphate and acctate of soda with the sulphate.	Slate-blue amorphous powder.	Blue precipit rocyanide a ido of potas	ates with fer- nd ferridcyan- sium. Crystalline precipitate with tar- taric acid, ammonia, and am- monio-sul- phate of magnesia.
*Syrupus Ferri Phosphatis.	Phosphate of iron.	Mixing with phosphoric acid, refined sugar and water, 1 gr. in 1 3.	***	•••	***
FERRUM TARTAR- ATUM.	Hydrated peroxide of iron (obtained by precipitating persulphate with ammonia).	Dissolving in solution of acid tartrate of potash.	Transparent scales of a deep garnet colour.	Blue precipitate with ferrocyanide of potassium.	Precipitate of bitar- trate of potash on addition of acetic acid after sepa- ration of peroxido of iron by boiling with soda.
FERRI ET AMMONIÆ CITRAS.	Ditto.	Dissolving in hot citric acid, and neutralising by ammonia.	Deep red transparent scales.	Precipitate of Fe ₂ O ₃ when heated with potash.	Evolution of ammonia when heated with potash.
Vinum Ferri Citratis.	Ammonio- citrato of iron.	8 grs. in 1 3 of orange wine.			

IMPURITIES	Source of Impurity	Tests	Action	Usr	Dose
Sulphate of soda.	Imperfect washing.	No ppt. with chloride of barium.	Alterative, tonic, escharo- tic.	Skin discases, with anæmia.	$\frac{1}{10}$ to $\frac{1}{8}$ gr.
Arsenic. General impurity.	Impure phosphoric acid.	No deposit on copper when di- gested with HCl. Volumetric test.	Hæmatinic.	Diabetes, rickets.	5 to 10 grs.
	•••	***	Ditto.	Ditto.	1 fl. 3 or more.
Ammonia. Ferrous salts. General impurity.	Imperfect preparation.	No evolution of ammonia when boiled with sods. No precipitate with ferridcyanide of potassium. Volumetric test.	Hæmatinic.	Anæmia.	5 to 20 grs.
Tartrates. Salts of soda and potash.	Impure citric acid.	No crystalline precipitate with acetic acid. Alkalinity of ash.	Ditto.	Ditto.	5 to 10 grs.
			1)	. ,	1 to 4 fl. 3.

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SUBSTANCE	Source	PREPARATION	PROPERTIES	REAC	TIONS
				Generie	Specific
FERRI ET QUINIÆ CITRAS.	Hydrated peroxide of iron (obtained as above).	Dissolving with quinia in citric acid, and adding ammonia.	Thin, greenish golden yellow scales.	Blue precipitate with ferrocyanide and ferridcyanide of potassium. Reddish brown precipitate with soda.	White precipitate with ammonia (quinia).
Manganesii Ox- idum Nigrum.	Native salt.		Heavy black powder.	Dissolves in HCl with evolution of chlorine.	•••
BISMUTHUM PU- RIFICATUM.	Bismuth.	Fusing with nitrate of potash.	Greyish white with roscate tinge, crystalline.	Concentrated acid solution precipitated white with water.	•••
BISMUTHI SUBNI- TRAS.	Purified bismuth.	Dissolving in dilute nitric acid, and decomposing the nitrate thus ob- tained by water.	Heavy white powder in crystalline scales.	Ditto.	Solution in H_2SO_4 blackened by sulphate of iron.
*Trochisci Bis- muthi.	Subnitrate of bismuth.	2 grs. in each.		•••	
BISMUTHI CARBONAS.	Nitrato of bismuth.	Precipitating solution of bismuth in nitric acid with carbonate of ammonia.	White pow- der.	Concentrated acid solu- tion preci- pitated white with water.	Effervescence with acids.
BISMUTHI OXIDUM.	Subnitrate of bismuth.	Precipitating by boiling in solution of soda.	Dull lemon- yellowpow- der.	Ditto.	

Impurities	Source of Impurity	Tests	Action	Use	Dose
Salts of soda and potash. Other alka- loids. General im- purity.	Substitution for quinia.	Alkalinity of ash. Solubility in ether of precipitate with ammonia. Volumetric test.	Hæmatinic, tonic, anti- pyretic.		5 to 20 grs.
				Production of chlorine and oxygen.	
Copper.	Imperfect purification.	No colour of precipitate from acid solution with ammonia.		Preparation of subnitrate and ammoniocitrate of bismuth.	
Lead.	Fraudulent admixture of white lead.	No precipitate nitric acid solution with H_2SO_4 .	Antacid, seda- tive, local sedative.	Dyspepsia, diarrhœa, skin diseases.	5 to 20 grs.
Chlorides.	Impure nitric acid.	No ppt. of nitric acid solution			
		with $AgNO_s$.	Antacid, seda- tive.	Dyspepsia.	2 or more.
Nitrate of bismuth.	Imperfect pre- paration.	Does not discharge colour of sul- phate of in- digo with H ₂ SO ₄ .	Vids sub	nitrate.	5 to 20 grs.
Lead. Chlorides.	Impure nitric acid.	No ppt, in nitric acid solution with H ₂ SO ₄ , or AgNO ₃ .			
Nitrate of bismuth.	Impure sub- nitrate.	Does not discharge colour of sulphate of indigo with H ₂ SO ₄ .	Ditto.		5 to 15 grs.
Lead. Chlorides.	Ditto.	No precipitate in nitric acid solution with			
Arsenic,	Ditto.	H ₂ SO ₄ , or AgNO ₈ . No turbidity of nitric acid solution treated with ammonia and neutralised with HOl.			

SUBSTANCE	Source	PREPARATION	PROTERTIES	REA	CTIONS
		TREPARATION	1 ROTERTIES	Generic	Specific
LIQUOR BIS- MUTHI ET AMMONIÆ CITRATIS.	Bismuth.	Dissolving in nitric acid and adding citric acid and ammonia until precipitate is dissolved.	Colourless salino solu- tion.	White precipitate of aqueous solution when heated with solution of potash.	Evolution of ammonia when heated with potash
Antimonium Ni- grum.	Native.			Dissolves in hot HCl with evolution of sulphuretted hydrogen.	
ANTIMONIUM SULPHURA- TUM.	Black anti- mony.	Boiling with solution of caustic soda and precipitating with dilute H ₂ SO ₄ .	Orango red powder.	Solution with acid tartrate of potash precipitated orange red with sulphuretted hydrogen.	Dissolves in HCl evolving sulphuretted hydrogen, with separation of sulphur,
Liquor Antimonii Chloridi,	Ditto,	Dissolving in hot HCl.	Yellowish rcd, heavy liquid.	White precipitate with water turned red by sulphuretted hydrogen.	Precipitate with AgNO ₈ .
ANTIMONII OXIDUM.	Solution of chloride of antimony.	Precipitating with water, and troating with carbonate of soda.	Greyish white powder.	Ditto.	•••
Pulvis Anti- monialis.	Oxide of antimony.	1 part oxide to 2 parts phosphate of lime.			***
ANTIMO- NIUM TAR- TARATUM,	Oxide of antimony.	Boiling with acid tartrate of potash.	Colourless transparent crystals.	Precipitate with HCl in watery solution soluble in tartaric acid.	Decrepitates and blackens on application of heat.
*Unguentum Anti- monii Tartarati.	Tartar emetic.	Mix with simplo ointment, 1 part in 5.	•••		
Vinum Antimo-	Ditto.	2 grs. in 1 3 of sherry.			

IMPURITIES	Source of Impurity	Тизтз	Action	Use	Dose
Deficiency in strength.	Imperfect preparation.	Volumetric test.	Vide Su	bnitrate.	½ to 1½ fluid 3 in water.
Silica.	Natural combination.	Solubility in HCl.	•••	Preparation of sulphurated antimony and solution of chloride of antimony.	
General impurity, such as sand, oxide of iron, &c.	Fraudulent addition.	Volumetric test.	Vide Tartarated Antimony.	Fovers, inflammation.	1 to 5 grs.
General deficiency in strength.	Fraudulent addition. Imperfect preparation.	Volumetric test.	Caustic escharotic.	Cancers, bites.	
Higher oxides of antimony.	Exposure to heat over 212°.	Solubility when boiled with acid tartrate of potash.	Vide Tartarat	ed Antimony.	1 gr. to 5 grs.
0.0%	•••	•••	Febrile co	nditions.	3 to 15 grs.
General impurity.	• •••	Volumetric test.	Emetic, vascular sedative, diaphoretic, expectorant, irritant.	Fevers, inflammations.	1 gr. to 3 grs. emetic. † gr. to 2 grs. sedative.
	***	•••	Irritant.	***	1 gr. to 1 gr. expectorant, &c.
	•••	•••	Emetic, scda- tive, &c.	Fevers, bronchitis.	15 to 40 m.

Substance	Source	Preparation	Properties	REAC	TIONS
,		I MITARATION	I ROPERTIES	Generic	Specific
ACIDUM ARSENIO- SUM.	Arsenical ores.	Roasting and sub-	Heavy white powder or sublimed porcelain-like masses.	Aqueous solution gives yellow ppt. with ammonionitrate of silver, soluble in ammonia or	
Liquor Arsenicalis.	Arsenious acid.	Dissolving in solution of carbonate of potash, and colouring with tincture of lavender.	Pink alka- line liquid.	nitric acid.	•••
Liquor Arsenici Hydrochlori- cus.	Ditto.	Boiling with dilute HCl.	Colourless, acid liquid.	Bright yellow precipitate with sulphuretted hydrogen.	
SODE AR- SENIAS.	Ditto.	Fusing with nitrate and carbonate of soda.	Colourless transparent prisms.	Alkalinity.	White precipitate with BaCl ₂ , chloride of
				,	calcium or sulphate of zinc, brick red precipitate with AgNO ₃ , all soluble in nitric acid.
Liquor Sodæ Arseniatis.	Arseniate of soda.	Solution in water, 4 grs. to 3.		•••	mine acid.
FERRI ARSEN- IAS.	Ditto.	Mixing solution with that of acetate of soda and ferrous sulphate, filtering and drying.	White pow- der.		Neutral solution gives brick red precipitate with AgNO ₃ .
Pнospнorus.	Bones.	Treating with H ₂ SO ₄ , and distilling with charcoal.	Semi-trans- parent wax like solid.		
OLEUM PHOS- PHORATUM.	Phosphorus.	Heating with oil of almonds to 180°.	Clear, almost colourless liquid, phos- phorescent.		

				الأكام المستحدد	1
Impurities	Source of Impurity	TESTS	Action	Use	Dose
Gypsum or chalk. General impurity.	Fraudulent addition.	Complete volatility. Volumetric test.	Alterative, antiperiodic, escharotic, antiseptic.	Skin diseases, intermittent fevers, neuralgia, chorea, pulmonary diseases.	to ½ gr.
• • •	•••		Ditto.	Ditto.	2 to 5 or 10 m.
Deficiency in strength. General impurity.	Imperfect preparation. Ditto.	Specific gravity. Volumetric test. Ditto.	Alterative, antiperiodic.	Ditto	2 to 8 m.
Excess or deficiency of water of crystallisation. General impurity.	Imperfect preparation.	Loss of weight by heat. Volumetric test.	Vide Arsenious Acid.		$\frac{\frac{1}{12} \text{ to } \frac{1}{2} \text{ gr.}}{\frac{1}{20} \text{ to } \frac{1}{4} \text{ gr.}}$ of dried arseniate.
	•••	•••	D	Pitto.	5 to 10 m.
Sulphates. General impurity.	Imperfect preparation.	No precipitate with BaCl ₂ . Volumetric test.	Ditto.		$\frac{1}{10}$ to $\frac{1}{8}$ gr.
•••		•••	Stimulant, aphrodisiac.	Nervous depression, neuralgia, psoriasis, eczema, goitre	
•••			Ditto.	Ditto.	3 to 10 m.

SUBSTANCE	Source	PREPARATION	PROPERTIES	REACTIONS
SPIRITUS RECTIFICA TUS.	Fermented saccharine fluids.	Distillation.	Colourless, inflam-mable liquid.	
Alcohol.	Rectified spirit.	Removing water by carbonate of potash and lime.	Volatile, colourless liquid, in- flammable.	
SPIRITUS TENUIOR.	Ditto.	5 to 3 of water.		
SPIRITUS VINI GALLICI.	Wine.	Distillation.		•••
*Mistura Spiritus Vini Gallici.	Brandy.	1 to 1 of cinnamon-water, with yolk of egg and sugar.	•••	
VINUM XERICUM.	Grape juice.	Fermentation.		
VINUM AURANTII.	Saccharine solution with bitter orange-peel.	Ditto.		•••
CEREVISLÆ FER- MENTUM,	Malt infu-	Ditto.		
Cataplasma Fermenti.	Yeast.	6 to 14 of flour, and 6 water.	• • •	
ÆTHER.	Alcohol.	Distillation with sulphuric acid.	Colourless, very volatile, and inflam- mable liquid.	

IMPURITIES	Source of Impurity	Tests	Астіон	Use .	Dose
Deficiency in strength.	Imperfect pre- paration or fraudulent addition.	Volumetric test.	Stimulant.	Sore nipples, preparation of tinctures, &c.	
Resin or oil. More than a trace of fusel oil or aldehyd.	Ditto.	No turbidity on dilution. Only slight reduction of nitrate of silver to metallic state.			
Resin or oil. Water.	Impure rectified spirit. Imperfect preparation.	No turbidity on dilution. No blue with white anhydrous sulphate of copper.		Solvent and test.	
***		4 0 5		Preparation of tinetures.	
	•••		Exhilarant, stimulant, anti-pyretic.	Debility, ex- haustion, fevers.	1 to 2 table- spoonfuls.
			Ditto.	Ditto.	1 to 9 fluid 3.
•••		•••	Exhilarant, stimulant.	Ditto. For pharmaceutical preparations.	
•••					
•••			Antiseptic, stimulant.	Ulcers.	A dessert to a table-
•••	•••	•••	13	,,	spoonful.
Alcohol. Dissolved impurities.	Imperfect pre- paration.	Specific gravity.	Anæsthetic, stimulant, external re- frigerant.	Surgical operations, flatulence, hernia.	to 1 20 m fluid 5.
1	,	1			

				*
Substance	Source	Preparation	Properties	REACTIONS
Spiritus Ætheris.	Ether.	Mix with rectified spirit=1 in 3.	***	
ÆTHER PU- RUS.	Ditto.	Washing and distilling with lime and calcium chloride.	Colourless liquid, vo- latile and inflam- mable.	
SPIRITUS ÆTHERIS NITROSI.	Rectified spirit.	Distilling with nitric and sulphuric acids and copper, and adding rectified spirit.	Mobile, in- flammable liquid, slightly yel- low, odour of apples.	
ÆTHER ACETICUS.	Ditto.	Distilling with ace- tate of soda and sulphuric acid.	Clear liquid, with a burn- ing taste.	Resolution into acetate of potash and alcohol on addition of alcoholic solution of potash.
Alcohol Amylicum.	Saccharine solutions.	Fermentation with yeast.	Colourless liquid, with penctrating odour.	Formation of valerianic acid on exposure to air with platinum black.
AMYL NITRIS.	Amylic alco- hol.	Boiling with nitric acid and purifying by fractional distillation.	Slightly yellow liquid, characteristic odour.	Formation of valerianate of potash when dropped on heated caustic potash.
CHLORO- FORMUM	Rectified spirit.	Distilling with chlorinated lime and slaked lime, and washing with sulphuric acid.	Limpid, colourless liquid, with a sweet taste and agreeable odour.	•••
**Linimontum Chloroformi	Chloroform.	Equal parts of chloroform and camphor liniment.	•••	
**Spiritus Chloro- formi.	Ditto.	Mix with rectified spirit.	•••	•••
*Tinctura Chloro- formi Com- posita.	Ditto.	2 to 8 of rectified spirit and 10 of tincture of carda- moms.	•••	
**Aqua Chloro- formi.	Ditto.	1 drachm in 25 oz. of water.		

	Impurities	Source of Impurity	Tests	Астюн	Use	Dose
-	···	•••	•••	Stimulant.	Flatulence.	1 to 11 fluid 3.
	Alcohol. Water.	Imperfect pre- paration.	Specific gravity.		Preparation of alkaloids, test.	
	General impurity. More than a trace of acid. Deficiency of nitrous ether.	Imperfect pre- paration. Ditto.	Little efferves- cence with bi- carbonate of soda. Volumetric test.	Stimulant, dia- phorotic, diu- retic.	Fevers, drop-sies.	½ to 2 fl. 3.
				Stimulant, anti- spasmodic.	•••	20 to 60 m.
	Other spirit- uous matter.	Imperfect se- paration from saccharine so- lutions.	Specific gravity and boiling point.		Preparation of valerianate of soda.	 ·
			•••	Dilates blood- vessels.		•••
	Hydrocar bons. Non-volatile compounds.	Decomposition from impurities in the sulphuric acid. Imperfect preparation.	No colour with sulphuric acid. No residue on evaporation.	Anæsthetic, narcotic, anti- spasmodic, sedative, stim- ulant, dia- phoretic.	Surgical operations, spasmodic affections, neuralgia, cancor, skin affections.	10 to 20 m inhalation. 1 to 10 m internally.
	•••	•••	•••	Stimulant, diaphoretic.	Neuralgia, skin affections.	•••
	•••	•••		Narcotic, anti- spasmodic, sedative.	Spasmodic affections, can- cer, nouralgia.	
	•••	***	, 	Ditto.	Ditto.	20 to 60 m.
	•••		•••	Ditto.	Ditto.	$\frac{1}{2}$ to 2 fl. 3.

SUBSTANCE	Source	PREPARATION	PROPERTIES	Reactions
CHLORAL HYDRAS.	Alcohol.	Saturating with chlorine gas, purifying and adding water.	White crystals, with pungent odour.	Decomposed by alkalies into formiate of the base and chloroform.
**Syrupus Chloral.	Hydrate of chloral.	Mix with water and syrup, 10 grs. to 1 fl. 3.		
Nitrous Oxido Gas.	Nitrate of ammonia.	Heating, purifying gas by passing through water, caustic potash, and protosulphate of iron.	Tasteless, inodorous gas.	•••
CREASOTUM.	Wood tar.	Distillation and purification.	Colourless liquid, strong odour, and burning taste.	Gives greenish blue colour to deal dipped in hydro- chloric acid.
*Mistura Croasoti.	Creasote.	Mixing with glacial acetic acid syrup, spirit of juniper, and water, 1 m in 1 fluid 3.		
Unguentum Creasoti.	Ditto.	Mix with simple ointment, 1 part in 9.	•••	
*Vapor Creasoti	Ditto.	12 m in 8 fluid 3 of water; boil.	•••	
ACIDUM CARBOLI- CUM.	Coal tar.	Fractional distillation, and purification.	Colourless acicular crystals.	Greenish blue to deal with hydrochloric acid. Non-rotation of polarised ray.
*Glycerinum Acidi Carbolici	Carbolic acid.	1 3 in 4 fluid 3 of glycorino.	***	
*Suppositoria Acidi Carbolici cum Sapone.	Ditto.	1 gr. in each.		

					1	1
	IMPURITIES	Source of Impurity	TESTS	Action	Use	Dose
	Hydrochlo- ric acid. Oily impu- rities.	Imperfect pre- paration. Ditto.	Test-paper. No colour with chloroform and sulphuric acid.	Soporific and anodyne, hypnotic.	Sleeplessness, spasms, asthma.	10 to 30 grs. as hypnotic.
	•••	•••	•••	"	1)	1 to 3 fl. 3.
		•••		Anæsthetic.	Operations.	
	Carbolic acid.	Imperfect purification.	Does not crystallize when cooled. Dextro-rotation of polarised ray.	Astringent, sedative, stimulant, styptic, ex- pectorant.	Vomiting, diarrhea, diabetes, ulcers, skin diseases, hæ- morrhage, bronchitis.	1 to 3 m in pill.
	•••	•••	•••	Sedative.	Vomiting, diarrhœa.	½ to 1½ fluid ž.
		•••	•••	Stimulant, styptic.	Ulcers, skin diseases, hæ- morrhage.	•••
1	•••	•••		Expectorant.	Bronchitis.	
	•••	•••		Astringent, sedative, ex- pcctorant, caustic, es- charotic, antiseptic.	Vomiting, diarrhæa, diabetes, ul- cers, wounds, bleeding.	1 in 8 of water, ex- ternally.
	•••	•••	•••	Ditto.	Ditto.	1 to 3 m.
	***	•••			•••	
-						



TABLES OF MATERIA MEDICA

(ORGANIC)

VEGETABLE.

SUBSTANCE	Sot	JRCE							
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS				
RA	RANUNCULACEÆ.								
ACONITI FOLIA.	Aconitum napellus.	Britain.	Leaves and flowers.	Dried.	Fine wcdge-shaped segments deeply cut. Flowers blue helmetshaped. Cause				
Extractum Aconiti.			Ditto		tingling when chewed.				
ACONITI RADIX.	Ditto	Germany and Britain.	Root	Dried.	About 1—3 inches long, conical not cylindrical. Causes tingling and numbness when				
** Tinctura Aco-	***		Ditto	Maceration and	chewed.				
* Linimentum Aco- niti.		•••	Ditto	percolation. Is strong tincture with camphor.	***				
Aconitia.			Ditto	Dissolve alcoholic extract in water, ppt. with N.H ₃ . Dissolve ethereal extract of ppt. in diluted H ₂ SO ₄ , and again ppt. by N.H ₃ .	White, amorphous solid, alkaline. Causes numbness when rubbed on skin. Very poisonous.				
* Unguentum Aco- niti. 4	***			Aconitia (8 gr.) dissolved in rect. spirit (1 fl. 3) and mixed with prepared lard 13.					
Podophylli Ra- dix.	Podophyllum peltatum.	United States.	Rhizome.	Dried.	About the size of a quill with numerous rootlets. Brown outside, with round white spots where the rootlets have been broken off and the interior is seen.				

MATERIA MEDICA.

SUBSTANCES RESEMBLING I	г Ноw киоwи	Composition	Action	Use	Dose
CL	ASS I.—EXOG	ENÆ. Su	B-CLASS.—TI	IALAMIFLO	RÆ.
•••		A little aconitia, &c.			
• • •			•••	Vide Aconiti Folia. Rarely used.	1 to 2 grs.
Horse-radisl	Thicker, much longer, cylindrical, pungent but not numbing when chewed.	Aconitia and other active principles, resinous and fatty matters.	Slows pulse, diminishes sensibility, increases secretions of urine and sweat.	Febrile conditions, neuralgias, cardiac disease, dropsy.	
				Ditto	5 to 15 m.
•••	•••		•••	Neuralgia, rheumatic pains.	
	W	S & WEST	, ULTY		
•••	•••			Local application in neuralgia.	A piece the size of a pea.
	•				
	,	Resin, berberino, gum, &c.	Purgative, chol agogue.	Congestion of liver, dropsics.	10 to 20 grs., rarely used.

Supania	Sot	RCE	n.	T)		
Substance	Botanical	Geographical	PART USED	PREPARATION .	CHARACTERS	
PODOPHYLLI RESINA.	Podophyllum peltatum.	United States.	Rhizome.	Tincture evaporated to a small bulk is poured into water acidulated with HCl. The pptd. resin is washed and dried.	Greenish brown amorphous powder.	
MA	GNOLIACE.	Æ.				
OLEUM ANISI.	Illicium ani- satum.	China.	Fruit.	Distillation.	Vide under Um- belliferæ.	
MEI	NISPERMA	CEÆ.				
CALUMBÆ RADIX.	Jateorrhiza palmata.	Eastern Africa.	Root.	Cut transversely and dried.	Yellow ovoid discs somewhat hollow in the centre with concentric rings.	
** Infusum Ca- lumbæ.	Calumbæ ra- dix.		•••	Infusion in cold water.		
Extractum Ca- lumbæ.	Ditto			Evaporate infusion.		
* Tinctura Calumbæ.	Ditto			Maccration and percolation.		
Pareiræ Radix.	Cissampelos Pareira.	Brazil.	Root.	Dried.	Distinguished by the eccentric woody rings of its transverse section.	
Decoctum Parreiræ.	Pareiræ radix.			Boiling.		
Extractum Pareiræ.	Ditto		•••	Evaporate an infusion.	•••	
Extractum Parciræ Liquidum.	Ditto			Partially eva- porate an in- fusion, and add spirit.		

Ī	SUBSTANCES RESEMBLING 1T	How known	Composition	Action	$\mathbf{U}_{\mathbf{SE}}$	Dose
	Pulv.Jalap.co.	By smell.		Purgative, cholagogue. If given alone, it is apt to be uncertain, so usually combined.	Congestion of liver, dropsies.	½ to 2 grs.
I						
		•••	•••	•••	•••	
			Neutral principle calumbin, yel- low alkaloid ber- berin, starch, no tannin.	Bitter stoma- chie tonic.	Dyspepsia, debility.	Of powder 10 to 20 grs.
	(Impurity.) Should contain no starch.	No colour with iodine.		Ditto	Ditto, and may be given with salts of iron.	1 to 2 fl. \(\xi\).
	···	•••	•••	Ditto	Ditto	2 to 10 grs.
		•••	•••	Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 5.
			Alkaloid buxine or pelasine identical with beberia, &c.	Diuretic, seda- tive to bladder.	Catarrh of blad- der, chronic pyelitis.	
	•••		•••	Ditto	Ditto	$1\frac{1}{2}$ to 2 fl. 3 .
				Ditto	Ditto	10 to 20 grs.
		•••		Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.

Substance	Sou	RCE				
BUBSTANCE	Botanical	Geographical	Part used	Preparation	CHARACTERS	
PAI	PAVERACE	Æ.				
Papaveris Capsulæ,	Papaver som- niferum.	Britain.	Nearly ripe eapsules.	Dried.	Globular brownish-yellow fragile eapsules, with a radiating stigma on the top, containing numerous brownish reniform seeds.	
Decoetum Papa- veris.	Papaveris capsulæ.	•••	•••	Boiling cap- sules without seeds.		
Extractum Papaveris.	Ditto			Evaporation of infusion, &e., and pptn. of albuminous matter by spirit.		
**Syrupus Papa- veris.	Ditto	•••		Partially eva- porate an in- fusion, &c., and add sugar.	•••	
OPIUM.	Papaver som- niferum.	Asia Minor.	Dried juice of capsules.	Juice collected from incisions in unripe capsules and evaporated spontaneously.	Irregular lumps covered with dock seeds, ehestnut-brown colour, moist fracture, peeu- liar odour, bitter taste.	
Emplastrum Opii.	Opium.			Mix 1 part with 9 of resin pluster.		

	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
1		1				
			Woody fibre and a little opium; seeds contain a bland oil.	Like opium, but much weaker.		
				Ditto	Local application to allay pain in inflamed parts.	
	•••			Feeble and uncertain.	Little use.	2 to 5 grs.
				Like opium.	Allay coughs, opiate for children.	1 fl. 3 to ½ fl. 3. For children, 1 fl. 3 cautiously increased.
	(Impurities.) Sand, stones, vegetable extracts, treacle, &c.	Percentage of morphia, ascertained by boiling infusion of 100 grs. with lime, acidulating the filtered fluid with	Principally morphia and codeia, with other alkaloids and meconic acid.	In small doses stimulant, in large soporific, lessens pain, sensibility, secretion, and movements of intestine.	Sleeplessness, inflammation, pain, cough, diarrhœa, &c.	$\frac{1}{2}$ to 2 grs.
		HCl, removing brown matter by a little ammonia and filtration, and precipitating morphia by excess of ammonia.		1		
			***		Relieve pain in rheumatic joints, &c.	

Substance	Sou	RCE			
SUBSTANCE	Botanical	Geographical	PART USED	Preparation	CHARACTERS
Linimentum Opii.	Opium.			Equal parts of laudanum and soapliniment.	
*Unguentum Galli cum Opio.	Ditto	•••		1 in $14\frac{1}{2}$.	•••
*Pulvis Ipecacu- anhæ Com- positus.	Ditto			Opium, ipecacuanha, sulphate of potash, 1 part opium in 10.	
Pilula Ipecacu- anhæ cum Scillå.	Ditto			Pulvis ipecacuauhæ compositus, squill, ammoniacum, and treacle, 1 in 23½.	
Trochiscus Opii.	Ditto		•••	¹ / ₁₀ gr. extract in each.	•••
Tinctura Opii Ammoniata.	Ditto			Opium, strong ammonia, benzoic acid, oil of anise, saffron, and spirit, 1 in 96.	
*Tiuctura Cam- phoræ Com- posita.	Ditto	•••		Opium, camphor, benzoic acid, oil of anise, and spirit, 1 in 240.	
*Pilula Saponis Composita.	Ditto	•••	•••	Opium and soap, 1 part in 5.	***
Extractum Opii.	Ditto	•	*	Evaporate cold infusion.	***
Extractum Opii Liquidum.	Ditto		***	Dissolve extract in water, and add spirit.	
**Tinctura Opii.	Ditto			Macerate in spirit, 1 in $14\frac{1}{2}$.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
•••			•••	Relieve pain in rheumatic joints, &c.	
•••	•••		•••	Piles.	
•••			Sudorific.	Cold in the head, febrile conditions.	5 to 15 grs.
•					5 to 10 grs.
					1 to 4.
•••		•••	•••	Coughs.	$\frac{1}{2}$ to 1 fl. 5.
	•••				15 m to 1 fl. 3.
					3 to 5 grs.
•••					$\frac{1}{2}$ to 2 grs.
•••			•••	General uses of opium.	10 to 40 m.
					5 to 40 m.

SUBSTANCE	Son	JRCE			
DOBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS
*Vinum Opii.	Opium.	•••	6	Dissolve extract in spirit with cinnamon and cloves, 1 of extract in 22, nearly same strength as tincture.	·
Pulvis Opii Compositus.	Ditto			Opium, caraway, ginger, pepper, and tragacanth, 1 in 10.	
Confectio Opii.	Ditto		•••	Pulvis opii compositus and syrup.	•••
Pulvis Cretæ Aromaticus cum Opio.	Ditto	*	•••	1 part in 40.	
**Půlvis Kino Compositus.	Ditto			Opium, kino, and cinnamon, 1 in 20.	
Pilula Plumbi cum Opio.	Ditto	*	•••	Opium, acetate of lead, and confection of roses, 1 in 8.	
Suppositoria Plumbi Com- posita.	Ditto			Opium, acetate of lead, &c., 1 gr. in each.	
MORPHIÆ HYDRO- CHLORAS.	Ditto		•••	Mix concentrated infusion of opium with chloride of calcium, decolorise by animal charcoal, precipitate the morphia by ammonia, and neutralise it with hydrochloric acid.	White acicular prisms. Moistened with strong nitric acid becomes orange red, and with solutiou of perchloride of iron greenishblue. Aqueous solution gives white ppt. with potash soluble in excess (morphia), and white ppt. with nitrate of silver (chloride).

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
	•••		***		10 to 40 m.
LE	EDS & WE	STRIDING			
MEDIC	O-CHIRURGIC	AL SOCIETY	•		
				General uses of opium.	2 to 5 grs.
					5 to 20 grs.
•••	•••		***		10 to 40 grs.
					5 to 20 grs.
•••	***			Diarrhea.	4 to 8 grs.
•••			***		
General impurities.	Quantitative analysis.		Like opium.	Vide Opium.	***
		·			

SUBSTANCE	Sou	RCE		PREPARATION	CHARACTERS
SUBSTANCE	Botanical	Geographical	PART USED		
*Liquor Morphiæ Hydrochloratis.	Morphia hy- drochloras.			Dissolve hydro- chlorate in water with HCl and spirit.	
Trochisci Morphiæ.	Ditto	• • •	•••	$\frac{1}{36}$ gr. in each.	
*Trochisci Morphiæ et Ipecacu- anhæ.	Ditto	***	***	Ditto	•••
*Suppositoria Mor- phiæ.	Ditto	•••	•••	½ gr. in each.	•••
*Suppositoria Mor- phiæ cum Sa- pone.	Ditto			Ditto	
MORPHIÆ ACETAS.	Ditto	•••		Precipitate morphia from solution of hydrochlorate by ammonia, and neutralise with acetic acid.	White powder. Same reactions as hydrochlorate, evolves acetous vapours with sulphuric acid.
Liquor Morphiæ Acetatis.	Morphiæ acotas.	•••	•••	Dissolve acctate in water with acetic acid and spirit, 1 in 60.	
**Injectio Mor- phiæ Hypoder- mica.	Ditto			1 in 12.	
RHŒADOS PETALA.	Papaver Rhœas.	Britain.	Petals.	Drying.	Dull red.
Syrupus Rhœados.	Rhœados pctala.			Infusion with sugar and spirit.	·

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	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
				•••	For its general action.	10 to 60 m.
	•••		.я	•••		1 to 4.
					Coughs.	1 to 4.
	•••			•••	Diarrhœa, local pain,	
	***			•••	general action.	
					·	
		•••				10 to 60 m.
					•••	1 to 6 m.
			Red colouring matter, rhœadine.	Very slightly sedative.	Colouring agent. Sedative for children.	
				Ditto	Ditto	1 fl. 3.

SUBSTANCE	Sou	RCE	PART USED							
- COBSTANCE	Botanical	Botanical Geographical		PREPARATION	CHARACTERS					
CR	CRUCIFERÆ.									
SINAPIS.	Sinapisnigra and S. alba.	Europe.	Seeds.	Grinding.	Small round, yellow inside. Those of S. alba are yellow outside, those of S. nigra are black and somewhat smaller.					
**Cataplasma Si- napis.	Sinapis.			Powdered mustard, linseed meal, each 2½, water 10.	•••					
*Charta Sinapis.	Black mustard seeds.		•••	Powdered black mustard seeds attached to paper by solu- tion of gutta percha.						
OLEUM SI- NAPIS.	Ditto	•••	•••	Expression of fixed oil, and distillation with water.	yellow, soluble in alcohol or ether, penetrat- ing odour and					
Linimentum Sinapis Compositum.	Oleum si- napis.		····	Oil of mustard and ethereal extract of mezereon in rectified spirit, with castor oil and cam- phor, 1 in 41.	pungent taste.					
Armoraciæ Radix.	Cochlearia Armoracia.	Britain.	Root.		Long, tap-shaped, cylindrical.					
Spiritus Armora- ciæ Compositus.	Armoraciæ radix.			Distilling with orange peel, bruised nutmeg, and diluted spirit.	•••					

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose				
Colchicum seeds.	Are much darker than white mustard, are lighter in colour and larger than black mustard, and are not quite round, but have a slight projec-	Sinigrin, sinalbin, and a ferment, myrosine, toge- ther yielding a pungent oil.	Rubefacient, vesicant, eme- tic.	Internal inflammations and congestions, as an emetic in poisoning, &c.	2 3 to 1 3.				
•••	tionatone side.	•••	•••	Internal inflam- mations, &c.	•••				
•••	•••		•••	Ditto					
				Ditto	•••				
	•••			Ditto					
		-							
Aconite root.	Aconite root is short, conical, darker in colour, and causes tingling when chewed.	Yields a pungent volatile oil.							
			Tonic, sudorific, diuretic.	Dyspepsia, rheu- matism, drop- sics.	1 to 2 fl. 3.				

SUBSTANCE	So	URCE				
SOBBIANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
PO	LYGALACI	EÆ.	•			
SENEGÆ RADIX.	Polygala Senega.	United States.	Rhizome.		Yellowish-brown, twisted and keeled with knobby head.	
**Infusum Senegæ.	Sonegæ radix.			Infusion, 1 in 10.		
*Tinctura Senegæ.	Ditto			Maceration and percolation in spirit, 1 in 8.		
KRAMERIÆ RADIX.	Krameria triandra.	Peru and Chili.	Root.	Drying.	Red colour within and without, astringent, tinges saliva red.	
*Infusum Kra- meriæ.	Krameriæ radix.			Infusion, 1 in 20.		
Extractum Krameriæ.		•••	• • •	Evaporating cold infusion.		
*Tinctura Kra- meriæ.		•••		Maceration and percolation, 1 in 8.	•••	
LIN	ACEÆ.					
LINI SEMINA.	Linum usi- tatissimum.	Britain.	Seed.		Small, dark brown, oval, shining.	
Infusum Lini.	Lini somina.			Infusing (16) with fresh liquorice (6) in boiling water, 16 grs. in 1 oz.		

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Ном киоми	Composition	Action	Use ·	Dose					
(Impurities.) Ginseng, gillenia. May be mistaken for root of veratrum viride, arnica, valerian, scrpentary.	These have no keel.	Contains a gluco- side senegin or polygalic acid, probably iden- tical with sapo- nin.	Stimulating expectorant, diaphoretic, diuretic, and emmenagogue.	Bronchitis, dropsy, dys- menorrhœa.	20 to 60 grs.					
			Ditto	Ditto	1 to 2 fl. \(\bar{z}\).					
•••			Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.					
Logwood, red sandal-wood.	Is in thin cylindrical pieces instead of chips or blocks.	Contains rhatanhia acid, rhatanhia red, and rhatanin.	Astringent.	Leucorrhea, prolapsus ani, spongy gums, sore throat, diarrhea, dysentery, hæmorrhage.	20 to 60 grs.					
	•••	•••	Ditto	Ditto	1 to 2 fl. 3.					
•••	•••		Ditto	Ditto	5 to 20 grs.					
			Ditto	Ditto	$\frac{1}{2}$ 5 to 2 fl. 3.					
	•••	Fixed oil and mucilage.								
	·	•••	Demulcent.	Diarrhœa, dysentery, catarrh, urinavy affections.	Ad lib.					

SUBSTANCE	Source		PART USED			
	Botanical	Botanical Geographical		PREPARATION	CHARACTERS	
LINI OLEUM.	Ditto	***		Expression.	Light yellow oil.	
LINI FARINA.	Ditto	•••		Expressing oil and grinding.	***	
**Cataplasma Lini.	Ditto	•••	-	Linseed meal (8), olive oil (1), boiling water (20).		
MA	LVACEÆ.					
GOSSYPIUM (Cotton).	Gossypium herbaceum.	United States.		Carding.	Fine tubular fila- ments.	
Pyroxylin (Gun Cotton).	Gossypium.			Dipping in equal parts of nitrie and sulphuric acid and washing.	Soluble in a mixture of ether and spirit, explodes by heat without residue.	
COLLODIUM.	Pyroxylin.			Dissolving (1) in ether (36) and rectified spirit (12).	Colourless in- flammable liquid with ethereal smell, leaves a thin transparent film when dried.	
COLLODIUM FLEXILE.	Collodium.	•••		Mixing (6 fl. 3) with Canada balsam (2 3) and easter oil (1 3).	•••	
AUI	RANTIACE	Æ.				
AURANTII FLORIS AQUA.	Ćitrus Bi- garadia and C. Auran- tium.	France.	Flower.	Distillation.	Nearly colourless, fragrant.	

Senstances Resembling To or Adult. TERATIONS						
Ditto Vide Cataplasma Ditto Vide Cataplasma Ditto Inflammation and suppuration of superficial parts and internal organs, spasm, &c. Linen. Twisted under microscope To protect burned and inflamed parts To prepare collodion To prepare collodion Ditto, but does not crack. Ditto bites. Ditto	RESEMBLING IT OR ADUL-	How known		Action	Use	Dose
Ditto Inflammation and suppuration of superficial parts and internal organs, spasm, &c. Linen. Twisted under microscope. To protect burned and inflamed parts. To prepare collodion. To prepare collodion. To prepare collodion. Ditto, but does not crack. Ditto Ditto, but does not crack. Ditto			•••	Emollient.		
Linen. Twisted under microscope. Cellulin To protect under microscope To protect burned and inflamed parts To protect clinfing med parts To protect cut, cracked, and inflamed skin, stop bleeding from leech bites Ditto, but does not crack. Ditto	•••	•••	•••	Ditto		•••
microscope.				Ditto	and suppuration of superficial parts and internal organs,	
microscope.				1		
Protective. To protect cut, cracked, and inflamed skin, stop bleeding from leech bites. Ditto, but does not crack. Ditto	inen.		Cellulin.		burned and inflamed	;··
Protective. To protect cut, cracked, and inflamed skin, stop bleeding from leech bites. Ditto, but does not crack. Ditto					To prepare collodion.	
Lead. Should not be coloured by sulphuretted Volatile oil (oil				Protective.	To protect cut, cracked, and inflamed skin, stop bleeding from leech	
coloured by of Noroli). sulphuretted				Ditto, but does not crack.	Ditto	
coloured by of Noroli). sulphuretted					3	
LEEDS & WESTRIDING	Lead.	coloured by sulphuretted	Volatilo oil (oil of Noroli).			
G MEDICO-CHIRURGICAL SOCIE		hydrogen.				

Substance	Source		PART USED	PREPARATION	
DUBSTANCE	Botanical	Geographical	PART USED	IREPARATION	CHARACTERS
**Syrupus Au- rantii Floris.	Aurantii floris aqua.			Mixing 1 part with water (2) and sugar (6).	
AURANTH FRUC- TUS (Orange fruit).	Citrus Bi- garadia.	Spain, &c.	Fruit.		
Vinnm Anrantii.	Ditto		Fresh pecl.	Fermenting saccharine so- lution with fresh peel.	Golden sherry colour, taste of bitter orange peel.
Tinctura Auran- tii Recentis.	Aurantii fructus.	•••	Ditto	Maccration and percolation.	•••
AURANTH CORTEX (Bitter Orange pec!).	Ditto		Ditto, outer peel.	Drying.	Thin strips, dark orange-coloured, fragrant, bitter.
Infusum Anrantii.	Aurantii cortex.	•••	•••	Infusion with boiling water, 1 in 20.	
Infusum Aurantii Compositum,	Ditto			Infusing 4 parts with fresh lemon peel (2), cloves (1), and boiling water (160).	
*Tinctura Au- rantii.	Ditto	•••		Maceration and percolation with proof spirit, 1 in 10.	
*Syrupus Aurantii.	Tinctura Au- rantii.	•••		Mixing with syrup, 1 in 8.	•••
LIMONIS SUCCUS (Lemon juice).	Citrus Limo- num.	Southern Europc.	Ripe fruit.	Expression and straining.	Slightly turbid liquid, pleasant odour and acid taste.
Limonis Cortex (Lemon peel).	Ditto	Ditto	Ditto, outer part of fresh rind.	Drying.	Yellow strips, fragrant, bitter.

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	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Usu	Dose
	•••	•••	•••		Flavouring.	1 fl. 3.
ı						
			•••		***	***
					To make Vinum Ferri Citratis and Vinum Quiniæ.	
					Flavouring.	1 to 2 fl. 3.
-			Volatile oil, bitter extractive hes- peridin, a little gallic acid.	Stomachic tonic.	Ditto, and dyspepsia.	
	•••	***		•••	Flavouring.	***
		•••			Ditto	
					Ditto	
	•••	•••	=	•••	Ditto	***
			Citric acid, mucilage, and salts of potash. 1,3 contains 32 grs. eitric acid.	Refrigerant, antiscorbutic.	Febrile conditions, seurvy.	1 fl. 3 up- wards.
			Volatile oil, bitter extractive hes- peridin, gallic acid.	See Auran	tii Cortex.	

Commission	Sou.	RCE				
Substance	Botanical	Geographical	Part used	PREPARATION	CHARACTERS	
* Syrupus Limonis.	Limonis cortex.			Mixing 1 part with boiling lemon juice (10), straining, and adding sugar (18).		
Tinetura Limonis.	Ditto			Maceration and percolation with proof spirit.		
Limonis Oleum (Oil of Lemon).	Ditto	Sicily.		Expression or distillation.	Pale yellow, odour and taste of le- mon peel.	
BELÆ FRUC- TUS (Bael fruit).	Ægle Marmelos.	Malabar and Coromandel.	Fruit.	Dried.	Size of orange; smooth greyish rind,generally in fragments, with adherent reddish pulp and sceds.	
* Extractum Belæ Liquidum.	Belæ fructus.			Macerating in water, evaporating, and adding spirit. 1 fl. 5 = 1 5 of fruit.		
ВҮ	TTNERIAC	EÆ.				
OLEUM THEO- BROMÆ (Oil of Theo- broma).	Theobroma Cacao.	West Indies and South America.	Seeds.	Expression and heat.	Consistency of tallow, yellowish, chocolate-like odour, pleasant taste, melts at 85° Fahr.	
GUTTIFERÆ.						
CAMBOGIA (Gamboge).	Garcinia Morella, variety pedicellata.		Gum resin.	Collected in bamboos and dried.	Thick tubes one inch in diameter, tawny, become yellow when rubbed with water; no odour, slight taste, becoming acrid.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Нош клоши	Composition	Action	Use	Dose
				Flavouring.	1 fl. 3.
				Ditto	1 to 2 fl. 5.
			Rubefaciont, carminative.	Ditto, rheumatism and dyspepsia.	1 to 5 m.
Entire colocynth fruit.	Colocynth lighter, its pulp white and bitter.	Not ascertained.	Astringent.	Diarrhœa, dys- entery.	•••
			Ditto	Ditto	½ fl. 5 to 1 fl.
-					
•••		Stearin and a little olein.	•••	To make suppositories.	•••
(Impurity.) Starch.	Watery emulsion not green with iodine.	Rosin and gum.	Drastic purgative.	Dropsies, cerebral disease.	1 to 5 grs.
		l l		}	}

Substance	Source		D			
	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
Pilula Cambogiæ Co.			Gamboge.	Mixing (1) with Barbadoes aloes (1), com- pound cinna- mon powder (1), hard soap (2), and sy- rup.		
CAN	NELLACEÆ					
CANELLÆ ALBÆ CORTEX (Canella alba bark).	Canella alba.	West Indies.	Bark.		Yellowish-white quills, clove-like odour, aerid peppery taste.	
VIT	ACEÆ.					
Uvæ (Raisins).	Vitis vinifera.	Spain.	Ripe fruit.	Drying in the sun.		
Vinum Xericum.	Ditto			Vide p. 56.		
ZYG	OPHYLLA	CEÆ.				
Guaiac Lignum (Guaiac wood).	Guaiacum officinale.	St. Domingo and Ja- maica.	Wood.		Dark greenish chips or rasp- ings.	
GUAIACI RESINA (Guaiac resin).	Ditto		Resin.	Natural exudation, incisions, heat.	Dark brownish masses with green tinge; solution in spirit strikes a blue with sliced raw potato.	

SUBSTANCES RESEMBLING IT OR ADUL TERATIONS	How known	Composition	Action Drastic purgative.	Use Dropsies, cerebral disease.	Dose 5 to 15 grs.
			Aromatic bit- ter, stomachic tonic.	In preparing Vin. Rhei.	•••
			•••	In preparing Tinctura Car- damomi Co. and Tinctura Sennæ.	•••
•••		•••			***
•••		Contains resin.	Diaphoretic, alterative, stimulant.	In preparing Decoctum Sarsæ Co.	
Myrrh, scammony, benzoin, aloes, resin.	By greenish tinge.	Guanacetic and guaiaconic acids.	Ditto	Quinsy, chronic rheumatism and gout.	10 to 30 grs.

SUBSTANCE	Source					
COBSTANCE	Botanical	Geographical	PART USED	PREPARATION	Characters	
Mistura Guaiaci.	Guaiaci resina.			Mixing (2) with sugar (2), gum arabic (1), and cinnamon water (80).		
**Tinctura Guai- aci Ammoniata.	Ditto	•••		Mixing with aromatic spt. of ammonia, 1 in 5.		
RU	FACEÆ.					
BUCHU FOLIA (Buchu leaves.)	Barosma betulina, B. crenulata, and B. ser- ratifolia.	Cape of Good Hope.	Leaves.	Dried.	Smooth, marked with pellncid dots, indented edges, strong odour, camphoraceous taste. B. betulina is obovate, other two lanceolate. B. serratifolia is longer than B. crenulata, and sharply sorrated instead of crenulated.	
*Infusum Buchu.	Buchu folia.	•••	•••	1 in 20.		
*Tinctura Buchu.	Ditto			Proof spirit, 1 in 8, macera- tion, and per- colation.		
Cuspariæ Cortex (Cusparia bark.)	Gallipea Cusparia. Augustura bark tree.	South America.	Bark.		In curved pieces, edges feathered, yellowish-grey, uneven outside, light brown inside, peculiar odour, bitter aromatic taste.	
Infusum Cuspariæ.	Cuspariæ cor- tex.	•••		Water at 100° Fahr., 1 in 20		

				1	1	
1	SUBSTANCES RESEMBLING T OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••	•••	Ditto	Ditto	1 to $1\frac{1}{2}$ fl. \tilde{z} .
				Ditto	Ditto and Quinsey.	½ to 1 fl. ζ.
	Senna and Uva ursi loaves. Leaves of	Senna and Uva ursi leaves have entire edges.	Volatile oil, bit- ter extractive.	Dinretic and urinary sedative.	Catarrh of the bladder, lithiasis.	20 to 40 grs.
	Empleurum serrulatum substituted for B. ser- ratifolia.	Leaves of E. serrulatum are narrower than			&WEST-RI RURGICAL S	
	***	•••	***	Ditto	Ditto	1 to 2 fl. 3.
			•••	Ditto	Ditto	1 to 2 fl. 5.
			•			
	Canella alba, bark of Strychnos, nux vomica.	Cusparia darker, less curled, and has edge shaved obliquely off. Nitric acid turns inner surface of strychnos blood-red, but not the cusparia.	Essential oil, bitter neutral principle cuspa- riu.	Stomachic.	Dyspepsia, diarrhea, dysentery, de- bility.	10 to 40 grs.
	•••			Ditto	Ditto	1 to 2 fl. 3.

Substance	Source		D				
COBSTANCE	Botanical	Geographical	PART USED.	PREPARATION	CHARACTERS		
SIM	IARUBACE	Æ.					
QUASSIÆ LIGNUM (Quassia wood).	Picræna ex- celsa.	Jamaica.	Wood.	•••	Chips, light yellow, bitter.		
**Infusum Quassiæ.	Quassiæ lig- num.	•••	* * *	Infusion in cold water, 1 in 80.	•••		
Extractum Quassiæ.	Ditto	•••	•••	Maceration in water, percolation, and evaporation.			
Tinctura Quassiæ.	Ditto	•••		Maceration in proof spirit, 3 in 80.			
	LASS II.—C.)RÆ.				
RHAMNI SUCCUS (Buckthorn juice).	Rhamnus catharticus.	Britain.	Juice of fruit.	Expression.	Green, with unpleasant odour and bitter taste.		
Syrupus Rhamni.	Rhamni succus.			Macerating with ginger and pi- mento, con- centrating, and adding sugar and spirit.			
ANA	ACARDIAC	EÆ.					
Mastiche (Mastich).	Pistacia Len- tiscus.	Levant.	Resinous exndation.		Light yellow tears.		
AMYRIDACEÆ.							
MYRRHA (Myrrh).	Balsamo- dendron Myrrha.	Arabia.	Gum resin exuding naturally.	•••	Irregular reddish- brown fragments, aromatic odour and aromatic bit- ter tasto.		

	SUBSTANCES RESEMBLING IT OR ADULTERATIONS	How known	Composition.	Action	Use	Dose		
	Sassafras chips.	Quassia bitter, not aromatic.	Bitter neutral principle, no	Bitter stoma- chic.	Dyspepsia, de- bility.	10 to 20 grs.		
	•••	•••	tannin.	Ditto	Ditto Injection to kill ascarides.	1 to 2 fl. 5.		
	***			•••	ascarides.	3 to 5 grs.		
4						$\frac{1}{2}$ to 2 fl. 3.		
-								
	•	•••	Glucoside rham- nin, not known if this be pur-	Purgative.		•••		
			gative or not.	Ditto	Purgative for children.	Children, $\frac{1}{2}$ to 2 fl. 5; adults, $\frac{1}{2}$ to 1 fl. $\frac{\pi}{3}$.		
	Gum arabic, ammonia- cum, galba- num in tears.	Mastic tears are smaller, smoother, and clearer yellow.	Two resins—Alpha resin and Beta resin or masticin.		Stopping for teeth.			
	Inferior myrrh, scammony, galbanum, ammoniacum, assafætida, gnaiac, benzoin, alocs, resin.	By smell, taste, and general appearance.	Volatile oil, gum resin.	Expectorant, astringent.	Sore month and throat, bronchitis, amenorrhea.	10 to 30 grs.		

	Source					
SUBSTANCE	Botanical	Geographical	PART USED.	PREPARATION	CHARACTERS	
*Tinctura Myr-rhæ.	Myrrh.		•••	Rectified spirit, 1 in 8, by maceration and percolation.		
Pilula Alocs ot Myrrhæ.	Ditto			Mixing (2) with Secotrine aloes (4), saffron (1), confection of roses (5), 1 in 6.		
ELEMI (Elemi).	Canarium commune (doubtful).	Manilla.	Resinous exudation.		Soft yellowish waxy masses, fennel-like odour, bitter aromatic taste.	
Unguentum Elemi.	Elemi.			Mixing with simple ointment, 1 in 5.	•••	
	HUMINOSÆ APILIONACEÆ.					
GLYCYRRHIZA (Liquorice).	Glycyrrhiza glabra.	England.	Root.	Drying.	Cylindrical, brown outside, yellow and fi- brous within, sweet taste.	
Extractum Gly- cyrrhizæ.	Glyeyrrhiza.		•••	Maceration, per- colation, and evaporation,	•••	
Extractum Gly- cyrrhizæ Liqui- dum.	Ditto			Macerating in water, boiling, straining, and adding spirit.	•••	
**Pulvis Glycyr- rhizæ Co.	Ditto			Mixing (1) with senna (1), sugar (3).		
TRAGACANTHA (Tragacanth).	Species of Astragalus.	Asia Minor.	Resinous exudation.		White horny flakes.	

L						
	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••	***	Expectorant, astringent.	Sore mouth and throat (specially), bronchitis, amenor-	$\frac{1}{2}$ to 1 fl. 5.
	•••			Purgative, emmenagogue.	rhœa. Amenorrhœa.	5 to 10 grs.
۱						
	Galbanum, ammonia- eum, assa- fœtida.	By taste and smell.	Volatile oil and resin.	•••		
					Indolent sores and boils.	
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Ì				1	1	
	Horse-radish, Pyrethrum, Taraxacum.	Sweet taste.	Sugar, albuminous matter, and gly-cyrrhizin.	Demulcent.	Cough, and vehicle for medicines.	•••
	•••		•••	Ditto	Ditto	10 to 30 grs.
	•••	•••		Ditto	Ditto	1 fl. 3.
				Purgative.		30 to 60 grs.
	Other gums, often whitened by white lead.	The spurious gum is usually in angular fragments; lead may be detected by dissolving in nitric acid and treating with sulphurotted hydrogen.	Two gums, Arabin soluble, and Bassorin insoluble in water.	Demulcent.	Suspend heavy powders.	•••

SUBSTANCE	Source					
OUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
Mucilago Traga- canthæ.	Tragacantha.	***		Distilled water 1 in 80.		
Pulvis Tragacan- thæ Co.	Ditto	•••		Mixing (1) with gum (1), starch (1), and refined sugar (3).		
SCOPARII CACUMINA (Broom tops).	Sarothamnus Scoparius.	Europe.	Tops fresh or dried,		Dark green angular twigs, peculiar odour and nauscous tasto.	
Succus Scoparii.	Scoparii ca- cumina.	*	Juice of fresh tops.	Expression and mixing (3), with spirit (1).	***	
*Decoctum Scopa-	,	•••	Dried tops.	Boiling with water, 1 in 20.	***	
PTEROCARPI LIG- NUM. (Red Sandal wood.)	Pterocarpus santalinus.	Coromandel and Ceylon,	Wood,		Dark red, close-grained.	
KINO (Kino).	Pterocarpus Marsupium,	Malabar.	Exudation.	Incision into trunk.	Small angular reddish-black shining frag- ments.	
*Tinctura Kino.	Kino.		•••	In rectified spirit,1 in 10, prepared by macceration.		
**Pulvis Kino Compositus.	Ditto			Mixing (15) with opium (1), cinnamon (4).		
Balsamum Peru- vianum (Pern Balsam.)	Myroxylon Pareiræ.	Central America.	Exudation from stem.	Charring and removing the bark.	Treacle-like, fra- grant odour, aerid aromatic taste.	
Balsamum Tolu- tanum (Tolu Balsam).	Myroxylon Toluifera.	Ditto	Exudation.	Incision into bark.	Resin-like, smell and taste like Peru balsam.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Usu	Dose
	•••		Demulcent.	Suspend heavy powders.	1 fl. 3 and upwards.
			Ditto	Ditto Dyspepsia.	20 to 60 grs.
Chiretta.	Broom is angular.	Scoparin, Sparteia.	Diuretic.	Dropsies.	
			Ditto	Ditto	1 to 2 fl. 3 or more.
			Ditte	Ditto	2 to 4 fl. z.
Logwood.	Is closer grained than logwood, and its colouring matter is insoluble in water.	Santalin.	Colouring.	Colour compound tineture of lavender, and through it liquor arsenicalis.	
		Kino-tannic acid, and pyrocate- chin.	Astringent.	Sore throat, diarrhœa, dys- entery.	10 to 30 grs.
			Ditto	Ditto	½ to 2 fl. 3.
			Ditto	Pyrosis, diar- rhœa, gastric catarrh.	5 to 20 grs.
		Cinnamein, cin- namic acid, and resins.	Stimulant, expectorant.	Bedsores, ulcers, bronchitis, rheumatism.	10 to 15 m.
(Adultera- tion) Resin.	The rosin is soluble in bisulphide of carbon.	Resin and cinnamic acid.	Ditto	Ditto	10 to 20 grs.

SUBSTANCE	Sou	RCE				
SUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS	
Tinctura Tolu-	Balsamum Tolutanum.	•••		Macerating in rectified spirit, 1 in 8.		
*Syrupus Toluta- nus.	Ditto	•••		Mixing with water and sugar, 1 \frac{1}{4} \frac{3}{5} in 3 lbs.		
PHYSOSTIG- MATIS FABA (Calabar bean).	Physostigma venenosum.	Western Africa.	Seed.	•••	Dark brown, with a deep groove running all along convex edge.	
**Extractum Physostigmatis.	Physostig- matis faba.			Maceration in rectified spirit and ovaporation.		
	HUMINOSÆ ÆSALPINEÆ.	2.				
HÆMA- TOXYLI LIGNUM (Logwood).	Hæmatoxy- lon eam- pechianum.	West Indies.	Wood.		Billets or chips, dark red, as- tringent taste.	
Decoctum Hæmatoxyli.	Hæmatoxyli lignum.			Boiling in water with cinnamon, 1 in 16.	*	
Extractum Hæmatoxyli.	Ditto			Maccration in water and evaporation.		
SENNA ALEXAN- DRINA Aloxandrian Senna).	Cassia lan- ceolata and Cassia obovata.	Alexandria.	Leaves.	•••	All are oblique at the base; leaves of C. elongata much longer than other two sorts; leaves of C. obovata known by their obovate shape.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••	Stimulant expectorant.	Bedsores, ulcers, bronchitis, rheumatism.	20 to 40 m.
•••	•••	•••	Ditto	Ditto	1 to 3 fl. 3.
Other seeds, such as those of oil palm.	By its long hilum.	Physostigmeia or eseria.	Contracts the pupil, paralyses spinal cord, depresses the heart.	Eye diseases, chorea, tetanus, general paralysis of the insane.	I to 4 grs.
	•••	•••	Ditto	Ditto	1 to 1 gr.
Red sandal-wood.	By chewing; logwood tinges saliva red. Red sandal- wood closer grained.	Hæmatoxylin, tannin, &c.	Astringent.	Diarrhœa, dysentery.	
			Ditto	Ditto	1 to 2 fl. z.
•••	•••		Ditto	Ditto, menor-rhagia.	10 to 30 grs.
Solenostem- ma Argel, Colutea ar- borescens, Coriaria myrtifolia, Tephrosia apollinea.	All equal at the base.	Cathartic acid.	Purgative.	Constipation, febrile conditions.	•••
	RESEMBLING IT OR ADULTERATIONS Other seeds, such as those of oil palm. Red sandal-wood. Red sandal-wood. Solenostem-ma Argel, Colutea arborescens, Coriaria myrtifolia, Tephrosia	RESEMBLING IT OR ADULTERATIONS Other seeds, such as those of oil palm. Red sandalwood. By chewing; logwood tinges saliva red. Red sandalwood closer grained. Red sandalwood closer grained. Solenostemma Argel, Colutea arborescens, Coriaria myrtifolia, Tephrosia	Red sandal- wood. By chewing; logwood tinges saliva red. Red sandal- wood closer grained. Solenostem- ma Argel, Colute ar- borescens, Coriaria myrtifolia, Tephrosia	Red sandalwood. Red sandalwood closer grained. Red sandalwood. Red sand	RESIDENCE IT OR ADULT TREATIONS

Substance	Sour	CE	T			
DUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS	
SENNA IN- DICA (Tinnivelly Senna).	Cassia elongata.	Southern India.	Leaves.	•••		
*Confectio Sennæ.	Senna.		•••	Senna, cassia pulp, figs, prunes, tamarinds, coriander, extract of liquorice, sugar, and water, 1 in 11.	•••	
**Pulvis Glycyr-rhizæ Co.	Vide Gly	ycyrrhiza.			-	
*Infusum Sennæ.	Senna.	0 0	• • •	Senna, ginger, boiling water, 1 in 10.	•••	
*Syrupus Sennæ.	Ditto		•••	Senna, oil of coriander, sugar, water, and spirit, 1 in 2.		
*Tinctura Sennæ.	Ditto	•••	•••	Senna, raisins, caraways, coriander, spirit, 1 in 8.	•••	
**Mistura Sennæ Co.	Ditto	•••	•••	Sulphate of magnesia (4 3), tincture of senna (2½ fl. 3), compound tincture of cardamoms (10 fl. 3), extract of liquorice (½ 3), infusion of senna (1 pint).		
Cassiæ Pulpa (Cassia Pulp).	Cassia fis- tula.	East or West Indies.	Pulp of pod.		Pod cylindrical, one to two feet long, brownish black, with nu- merous trans- verse septa.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Ном киоми	Composition	Action	Use	Dose
	J.	Vide Senna Alexand	e Senna Alexandrina.		
			Purgative.	Constipation, febrile condi- tions.	60 to 120 grs.
•••			Ditto	Ditto	1 to 2 fl. \(\vec{z}\).
•••			Ditto	Ditto	1 fl. 3 up- wards.
•••	 .		Ditto	Ditto	1 fl. 5 to ½ fl. 5.
			Ditto	Ditto	1 to 1½ fl. ξ.
	-				
			Laxative.	Constipation.	120 grs. up- wards.

Substance	Son	URCE			
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Tamarindus (Tamarind).	Tamarindus indica.	East and West Indics.	Preserved pulp.		Brown, sweetish subacid, containing strong fibres and brown shining seeds.
COPAIBA (Copaiva).	Copaifera multijuga.	West Indies and Valley of Amazon.	Oleo-resin.	Incision of trunk.	Yellow oily liquid, peculiar odour, nauseous taste.
COPAIBÆ OLEUM.	Copaiba.			Distillation.	Colourless liquid, smell and taste of copaiba.
	GUMINOSÆ Imoseæ.	4.			
ACACIÆ GUMMI (Gum Acacia).	Species of Acacia.	Eastern Africa.	Gummy exudation.	•••	Whitish tears or fragments with shining surfaces, no smell, mucilaginous taste.
*Mucilago Acaciæ.	Acaciæ gummi.			Dissolve (2) in water (3).	
INDIGO.	Species of Indigofera.	India.			Blue pigment.
Solution of Indigo.	Indigo.			Dissolve in sulphuric acid, $\frac{1}{2}$ gr. to 1 fl. $\overline{3}$.	
ROS	SACEÆ.				
Rosæ centifo- LIÆ PETALA (Cabbage-rose pe- tals).	Rosa centifolia.	Britain.	Fresh petals.	Drying.	Colour and smell of roscs.

SUNSTANCES RESEMBLING 1T OR ADUL- TERATIONS	Нош киоши	Composition	Action	Use	Dose
		Tartaric and citric acids combined with potassh.	Refrigerant, laxative.	Febrile conditions, constipation.	$\frac{1}{4}$ to $\frac{1}{2}$ $\frac{\pi}{5}$.
Canada bal- sam. (Adulteration) Turpentine and fixed oils.	By smell. After heating on paper; fixed oils leave a greasy ring round the stain.	Volatile oil and resin.	Stimulant to mucous membranes, diuretic.	Gonorrhæa, cystitis, dropsy, bron- chitis.	15 m to 1 fl. 3.
			Ditto	Ditto	5 to 20 m.
•					1
(Impurity.) Starch. Mastich, fran- kincense, gal- banum, am-	iodine. Taste and smell.	Gummic acid combined with lime, magnesia, and potash.	Demulcent.	Suspending of powders, sore throat.	Ad lib.
moniacum.					
moniacum.			Ditto	Ditto	
			Ditto	Ditto	
		•••		Test for chlo-	

Substance .	Sor	JRCE			
DUBSTANCE .	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
*Aqua Rosæ.	Rosæ centi- foliæ petala.			Distilling with water.	
Rosæ Gallicæ Petala (Red rose potals).	Rosa gallica.	Britain.	Flower buds.	Fresh or dried.	Purplish red, odour of roses.
*Infusum Rosæ Acidum.	Ditto		•••	Infusing in boiling water acidulated with sulphuric acid, 1 in 40.	•••
Confectio Rosæ Gallicæ.	Rosæ gallicæ petala.		•••	Fresh petals pounded with sugar, 1 in 4.	
Syrupus Rosæ Gallicæ.	Ditto			Dried petals mixed with sugar, in boiling water, 1 in 23.	
Rosæ Caninæ Fructus (Hips).	Rosa canina.	Britain.	Ripe fruit.	Depriving of sceds.	Ovate scarlet fruit. sweet subacid taste.
Confectio Rosæ Caninæ.	Rosæ caninæ fructus.	•••		Rubbing with sugar, 1 in 3.	•••
AMYGDALA DUL- CIS (Sweet Almond).	Amygdalus communis.	Malaga.	Seed.		Lanceolate, cinna- mon brown, plea- sant taste.
Pulvis Amygdalæ Co.	Amygdala dulcis.			Almonds (8), sugar (4), gum (1).	
*Mistura Amyg- dalæ.	Ditto	•••	'	Pulv. Amyg. Co. with water, 1 in 8.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Ном кломл	Composition	Action	Йзг	Dese
			••••	As a vehicle for lotions. Used in Mistura Ferri composita and Trochischi Bismuthi.	
		Red colouring matter, querci- trin, gallic acid.	Astringent.	•••	
		•••	Ditto .	Gargle in sore throat, vehicle for other me- dicincs.	1 to 2 fl. \(\bar{z}\).
		•••	Ditto	To make pills, sore mouth and throat.	60 grs. or more.
			Ditto	To colour mix- tures.	1 3.
		Uncrystallisable sugar, gum, citric and malic acids, free and combined.	Ditto	•••	
•••			Ditto	To make pills; in sore throat, &c.	60 grs. or more.
Bitter almond.	Bitter almond evolves hy- drocyanic acid when bruised with water; and by taste.	Oil, amandin, a sort of vegetable cascin, and emulsin.	Nutritive, demulcent.	Diabetes.	
	•••		Ditto	Vehicle.	1 to 2 5.
			Demulcent.	Ditto	1 to 2 fl. z.

0	Source		Diam warm	Preparation	CHARACTERS	
SUBSTANCE	Botanical Geographical		PART USED	FREPARATION	CHARACTERS	
AMYGDALA AMARA (Bitter Almond).	Amygdalus communis.	Mogador.	Secds.		Like sweet almond.	
Amygdalæ Oleum.	Amygdala dulcis and Amygdala amara.			Expression.	Pale yellow, nutty odour, bland taste.	
Prunum (Prune).	Prunus do- mestica.	Southern Europe.	Fruit.	Drying.	Black, wrinkled, ovate, sweet taste.	
Laurocerasi Folia (Cherry-laurol leaves).	Prunus Lau- roccrasus.		Fresh leaves.		Dark green, leathery, ovate-lanceolate, with bitter aromatic taste, and emitting a ratafia odour when bruised.	
*Aqua Laurocc- rasi (Laurel water).	Laurocerasi folia.	•••	•••	Fresh leaves (1 lb.), with water (2½ pints), by maceration and distillation.	ordised.	
CUSSO (Kousso).	Brayera anthelmintical		Flowers and tops.		Reddish-brown flowers, zigzag hairy stalk, five- parted double calyx, tea-like smell, and bitter	
*Infusum Cusso.	Cusso.		•••	Infusing with water, 1 in 16.	acrid taste.	
MY	RTACEÆ.					
CARYOPHYLLUM (Cloves).	Caryophyllus aromaticus.	East India Islands, &c		Drying.	Small reddish- brown four- toothed calyx surmounted by a ball-like corolla, aromatic smell and hot taste.	

	SUBSTANCES RESEMBLING 1T OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
	Vide Amyg- dala Dulcis.		Like sweetalmond, but contains also amygdalin, which in contact with emulsin deve- lopes hydrocya- nic acid.	Poisonous.	To yield oil.	
				Demulcent and purgative.	To make ointment, gentle laxative.	1 fl. 3 to ½ fl. 3.
			Malic acid, with saccharine and albuminoid matters.	Laxative.	To make Confectio Sennæ.	2 3 and upwards.
			Bitter almond oil and hydrocyanic acid.	Poisonous.	To make Aqua Laurocerasi.	
				Sedative.	Like hydrocy- anic acid.	5 to 30 m.
		•••	Tannic acid, with resinoid principle koussin.	Anthelmintic.	Tapeworm.	1 to 1 3.
	•••			Ditto	Ditto	4 to 8 fl. 3.
			Volatile oil, gum, and tannic acid.	Stimulant, carminative.	Dyspepsia, toothache.	
-					4	

C	Sour	RCE			
Substance -	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
*Infusum Caryo- phylli.	Caryophyl- lum.	•••	•••	Bruised cloves infused with water, 1 in 40.	
Caryophylli Oleum.	Ditto			Distillation.	Colourless or red- dish brown, with odour of cloves, sinks in water.
PIMENTA (Pimento).	Eugenia Pi- menta.	West Indies.	Unripe fruit.	Drying.	Brown rough berry about the size of a small pea, odour and taste aromatic.
Pimentæ Oleum.	Pimenta.			Distillation.	Colourless or red- dish, with odour of pimento, sinks in water.
*Aqua Pimentæ.	Ditto	•••		Distilling with water, 14 3 to 1 gallon.	
OLEUM CAJUPUTI (Oil of Cajuput).	Melaleuca minor.	Batavia and Singapore.	Leaves.	Distillation.	Pale bluish green, camphoraceous odour, bitterish aromatic taste.
Spiritus Cajuputi.	Oleum Caju- puti.	•••	•••	In spirit, 1 in 50.	***
GRANATI RADICIS CORTEX (Pomegranate root bark).	Punica Granatum.	South of Europe.	Bark of root.	Drying.	Thin quills, greyish yellow outside, yellow within, short fracture, little odour, astringent bitterish taste.
Decoctum Granati Radicis.	Granati radicis cortex.	·		Boiling and evaporating, 1 in 20.	•••

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1	SUBSTANCES RESEMBLING TOR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
-	•••	•••		Stimulant, car- minative.	Vehicle.	1 to 4 fl. 3.
1				Ditto	Adjunct to purgatives.	1 to 5 m.
	Pepper.	Calyx-teeth on top of pimento.	Volatile oil and tannic acid.	Same as	Same as cloves.	
				Same as oi	l of cloves.	1 to 5 m.
					Vehicle.	1 to 2 fl. 3.
	(Impurity.) Copper.	Usual copper tests.	Cajuputin.	Rubefacient, stimulant, an- tispasmodic, and diaphore- tic.	Rheumatism, colic, hyste- ria, &c.	1 to 5 m.
		•••		Ditto	Ditto	½ to 1 fl. 3.
	Canella alba, cinnamon.	Taste.	Tannin, sugar, and gum.	Astringent anthelmintic.	Tapeworms.	
		MEDICO-CHI	&WEST-RIE RURGICAL SO 	ING CIETY Ditto	Ditto	1 to 3 fl. 3.

Substance	Sot	JRCE				
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
CUC	CURBITACI	EÆ.	·	1		
COLOCYN- THIDIS PULPA (Colocynth pulp).	Citrullus Co- locynthis.	Mediterra- nean coasts	Pulp.		Fruit size of an orange; the pulp, from which the hard yellow rind is removed, is yellowish white, tough, spongy, and intensely bitter.	
**Extractum Colocynthidis Co.	Colocynth pulp.	•••	•••	Mixing a strong tincture of colocynth with extract of Socotrine aloes, scammony, and hard soap, evaporating to an extract, adding cardamoms and evaporating to a pill.		
**Pilula Colocyn- thidis Co.	Ditto			Colocynth (4), Barbadoes aloes(8), scammony (8), sulphate of potash (1), oil of cloves (1).		
**Pilula Colocynthidis et Hyoscyami.	Ditto			Compound colocynth pill (2), extract of heubane (1).		
ECBALII FRUCTUS (Squirting cucumber).	Ecbalium officinarum.	Southern Europe.	Juice.		Fruit oval, $1\frac{1}{2}$ inches long, covered with soft prickles, when ripe expels seeds and juice forcibly.	
ELATERIUM.	Ditto	Ditto	Sediment from the juice.	Drying the sediment from the expressed and strained juice.	Thin flat pieces, about a line thick, green when fresh, afterwards grey, light, and friable.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose				
		Glucoside, colocynthin, and resin.	Drastic purgative.	Constipation, dropsy, ame- norrhœa, cere- bral affections.	2 to 8 grs.				
•••		•••	Ditto	Ditto	3 to 10 grs.				
•••			Ditto	Ditto	5 to 10 grs.				
		•••	Ditto	Ditto	5 to 10 grs.				
•••	•••		•••						
(Impurities.) Starch, flour, or chalk.	No blue with iodine or effervescence with acids.	Elaterine and resinous matter.	Drastic, hydragogue, cathartic.	Dropsies.	1 to 1 gr.				

Substance	Source							
DUNSTANCE	Botanical	Geographical	PART USED	Preparation	CHARACTERS			
**Pulvis Elaterii Co.	•••	•••		Elaterium and sugar of milk, 1 in 10.				
UM	UMBELLIFERÆ.							
CONII FOLIA (Hemlock leaves).	Conium maculatum.	Britain,	Leaves.	•••	Deep green, smooth, tripin- nate, with pinna- tifid leaflets.			
Cataplasma Conii,	Hemlock leaves.	•••		Hemlock leaf (1), linseed meal(3), boil- ing water (10).				
Vapor Conii.	Ditto	•••		Extract of hem- lock, liquor potassæ, dis- tilled water.				
Extractum Conii.	Ditto		•••	Like other green extracts.	•••			
Pilula Conii Co.	Ditto		•••	Extract of hemlock (5), ipecacuan (1), treacle.	•••			
**Succus Conii.	Ditto	•••	•••	Expressed juice and spirit, 3 in 4.				
CONII FRUC- TUS.	Dried hem- lock fruit.				Like caraway seeds, but short- er, lighter co- loured, and with waving ridges.			
*Tinctura Conii.	Hemlock fruit.	•••	•••	Fruit and proof spirit, 1 in 8.				
ASSAFŒ- TIDA.	Narthex Assa- fætida.	Persia and Northern India.	Gum-resin.		Brownish-red masses mottled with white, strong fætid odour.			

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SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use ·	Dose
			Drastic, hydragogue, cathartic.	Dropsies.	$\frac{1}{2}$ to 5 grs.
				•	
	More deeply subdivided than other leaves in the Pharmaco-	Conia, methyl-co- nia, and volatile oil.	Diminishes sensibility and motor power by acting on spinal cord	Cancer, cough, chorea, ner- vous tremors.	2 to 8 grs.
	pœia.		and ends of motor nerves.		
	•••		Ditto	Cancer, painful ulcers.	•••
	• • • •			Coughs.	
•••	•••	•••	Vide 1	eaves.	2 to 6 grs.
•••				Coughs.	5 to 10 grs.
			Vide 1	eaves.	2 fl. 3 and upwards.
Caraway, anise, dill, and santo- nica.	Presence of ridges and absence of vitte.				
•••	•••	•••	Vide le	eaves.	½ 3 and up- wards.
(Impurities.) Earthy matter, fraudulently added. Ammoniacum, galbanum, benzoin.	Exhausting and incinerating. Smell.	Volatile oil, gum, and resin.	Stimulant, antispasmodic, carminative.	Hysteria, asthma, tympanites.	5 to 30 grs.
			1		

0	Source		PART USED	70	G	
SUBSTANCE	Botanical	Geographical	TART USED	PREPARATION	CHARACTERS	
*Enema Assafœ- tidæ.	Assafætida.		•••	Assafætida 30 grs., water 4 fl. 3.		
*Pilula Aloes et Assafætidæ.	Ditto		•••	Socotrine aloes, assafætida, hard soap, and confection of roses, 1 in 4.		
**Pilula Assafœ- tidæ Composita.	Ditto		•••	Assafætida, galbanum, myrrh, treacle.	•••	
Spiritus Ammoniæ Fætidus.	Ditto			Assafætida, strong solution of ammonia, and rectified spirit.		
Tinctura Assafœ- tidæ.	Ditto			Assafætida and spirit, 1 in 8.	•••	
Galbanum (Galbanum).	Ferula galba- niflua.	Levant and India.	Resinous ex- udation.		Masscs of adhering tears, light brown, aromatic smell and bitter taste.	
Emplastrum Galbani.	Galbanum.	•••		Galbanum (1), ammoniac (1), yellow wax(1), lead plaster (8).		
AMMONIACUM (Ammoniac).	Dorema Am- moniacum.	Persia and India.	Resinous exudation.		Pale yellow tears peculiar odour acrid taste.	
Emplastrum Am- moniaci cum Hy- drargyro.	Ammoniacum		•••	Ammoniacum (12), mercury (3), olive oil $(\frac{1}{8})$, sulphur $(\frac{1}{54})$.		
*Mistura Ammo- niaci.	Ditto			In water, 1 in 32.		
ANISI OLEUM (Oil of Anisc).	Pimpinella Anisum.	Southern Europe.	Essential oil of fruit.	Distillation.	Colourless or pale yellow, agreeable odour, and swee aromatic taste.	

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	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			•••	Stimulant, anti- spasmodic, carminative.	Tympanites.	•••
	•••	···	•••	Ditto	Ditto, and constipation.	4 to 10 grs.
			•••	Ditto	Chronic bron- chitis.	5 to 15 grs.
	• • •		•••	Ditto	Ditto	$\frac{1}{2}$ to 1 fl. 5.
		•••		Ditto	Ditto	$\frac{1}{2}$ to 1 fl. 3.
	Ammoniacum. Assafætida, benzoin.	Less readily softened by heat, bitter taste sooner felt, red when heated with HCl. Smell.	Volatile oil, resin, and mucilage.	Stimulating expectorant.	Bronchitis.	10 to 30 grs.
	•••	•••		Stimulant.	Tumours.	,
	Galbanum, as- safœtida, benzoin.	Vide Galbanum.	Volatile oil, gum, and resin.	Stimulating expectorant, irritant.	Bronchitis, tu-	10 to 30 grs.
	***	•••		Irritant.	Tumours, cn- larged joints.	•••
-	•••			Vide Amm	oniacum.	½ to 1 fl. z.
				Aromatic sti- mulant, car- minative.	Flatulence.	2 to 5 m.
-						

Cypos	Sou	RCE	Dimmons	Preparation	CHARACTERS
SUBSTANCE	Botanical	Geographical	Part used	FREPARATION	CHARACTERS
Essentia Anisi.	Anisi oleum.	•••	•••	In rectified spirit, 1 in 4.	•••
Fœniculi Fructus (Sweet Fennel fruit).	Fœniculum dulce.	Southern Europe.	Fruit.		Cylindrical, about ² / ₅ inch long, slightly arched, greenish colour, aromatic odour and taste.
Aqua Fæniculi.	Fœniculi fructus.	•••	•••	Distilling with water.	•••
Coriandri Fruc- tus (Coriander fruit).	Coriandrum sativum.	Europe.	Fruit.	Drying.	Small yellow glo- bular, straight ridged fruit, aro- matic odour and taste.
OLEUM CORIANDRI.	Coriandri fructus.	•••	•••	Distillation.	Yellowish, with odour of the fruit.
CARUI FRUCTUS (Caraway fruit.)	Carum Carui.	Mid Europe.	Fruit.	Drying.	Small, brown, slightly curved, ovate; aromatic odour and taste.
CARUI OLEUM.	Carui fructus.		•••	Distillation.	Pale yellow, with odour of the fruit.
Aqua Carui.	Ditto	•••	dav	Partial distillation.	
ANETHI FRUC- TUS (Dill fruit).	Anethum graveolens.	Southern Europe.	Fruit.	Drying.	Small brown ovoid ridged fruit, one side concave, aro- matic odour and taste.
ANETHI OLEUM.	Anethi fructus.	•••		Distillation.	Pale yellow, le- monlike odour, sweetish acrid taste.
*Aqua Anethi.	Ditto	•••		Partial distilla- tion with water.	

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1	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
	•••			Aromatic stimu- lant, carmina- tive.		10 to 20 m.
C	onium, cara- way, anise, dill.		Volatile oil, like oil of anise; seeds contain fixed oil.		of Anise.	•••
		•••	•••	Ditt	to	1 to 2 fl. 3.
			Volatile and fixed oils.	Stimulant carminative.	Mixed with purgatives.	10 to 30 grs.
			Isomeric with hydrous oil of turpentine.	Ditto	Ditto	2 to 5 m.
	onium, fen- nel.	Ridges small, taste spicy.	Volatile oil.	Ditto	Ditto	
	•••			Ditto	Ditto	2 to 5 m.
	•••		•••	Ditto	Flatulence.	1 to 2 fl. z.
f	nium, anise, fennel, cara- way.	Is winged.	Volatile and oxygenated oils.	Ditto	Mixed with purgatives, flatulence in children.	
	•••	•••	•	Ditto	Ditto	2 to 5 m.
,				Ditto	Ditto	1 to 2 fl. 3. 1 to 2 fl. 3 for infants.

SUBSTANCE	Sou	RCE	T)	77	G
SUBSTANCE	Botauical	Geographical	PART USED .	PREPARATION	CHARACTERS .
SUMBUL RADIX (Sumbul root).	Euryaugium Sumbul.	Bokhara.	Root.	Drying.	Transverse slices with brown wrinkled bark, bitter taste, odour of musk.
Tinctura Sumbul.	Sumbulradix.	•••	•••	Powdered root and proof spi- rit, 1 in 8.	•••
CAF	PRIFOLIACI	ΞÆ.			
SAMBUCI FLORES (Elder flowers).	Sambucus nigra.	Indigenous.	Flowers.	Drying.	Dull yellow five- parted cymes, characteristic odour, bitterish taste.
Aqua Sambuci.	Sambuci flores.		•••	Partial distillation with water.	
CIN	CHONACE	Œ.			
CINCHONÆ FLAVÆ CORTEX (Yellow Cinchona bark).	Cinchona Calisaya.	South America and East India.	Inner bark.	Drying.	Yellow quills or flat pieces, bit- ter taste.
*Decoctum Cinchonæ Flavæ.	Cinchonæ flavæ cor- tex.		•••	Boiling powdered bark (1) in water (15).	
**Extractum Cin- chonæFlavæ Li- quidum.	Ditto	•••		Powdered bark (16), rectified spirit (1), water ad lib., macerating, percolating, and evaporating.	
Infusum Cinchonæ Flavæ.	Ditto	•••		Infusing pow- dered bark (1) in water (20).	•••

SUBSTANCES RESEMBLING 1T OR ADUL- TERATIONS	How known	Composition .	Action	Use	Dose
		Resin and oil.	Nervine stimu- lant.	Nervous dis- orders.	
			Ditto	Ditto	10 to 30 m.
Kousso.	Smaller flowers and separate.	Volatile oil.	Stimulant.	In making ointments.	
			Ditto	As a vehicle.	1 to 2 fl. 3.
(Impurity.) Inferior barks. Red cinchona bark. Elm bark, larch bark, beberu bark,	Quantity of quinine present. (No epidermis. Surface marked with tool. Bitter taste.	Cinchonine, cinchonidine, quinine, quinidine, and quinamine, with other alkaloids and various acids (quinine predominating).	Tonic, antiperiodic, antipyretic, astringent, stimulant.	Fevers, mala- rious diseases, neuralgias, debility.	10 to 60 grs.
Winter's bark.			Vide Quin	iæ Sulphas.	1 to 2 fl. \(\tilde{z} \).
•••	•••		Ditto		10 m to 1 fl. 3.
			Dit	to	1 to 2 fl. 3.

Substance	Sov	TRCE				
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
**Tinetura Cin- chonæ Flavæ.	Cinchonæ flavæ cor- tex.			Macerating powdered bark (1) in proof spirit (5).		
CINCHONÆ PALLIDÆ CORTEX (Pale Cinchona bark).	Cinchona condaminea.	South America and East India.	Inner bark.	Drying.	Greyish quills spotted with lichens.	
Tinctura Cinchonæ Co.	Cinchonæ pallidæ cortex.			Powdered bark (2), bitter orange peel(1), serpentary (\frac{1}{2}), saffron (\frac{1}{7}), co- chineal (\frac{1}{14}), proof spt. (20), by maccration and percola- tion.		
CINCHONÆ RUBRÆ CORTEX (Red Cinchona bark).	Cinchonasuc- cirubra.	Ditto.	Inner bark.	Drying.	Brownish-red quills or flat pieces.	
Quiniæ Sulphas.	Cinchonæ flavæ cor- tex.		•••	Macerating with hydrochloric acid, precipitating with soda, neutralising with sulphuricacid, and crystallising.	•••	
**Pilula Quiniæ.	Quiniæ sulphas.	•••	,	With confection of hips, 3 in 4.		
**Tinctura Qui- niæ.	Ditto			With tincture of orange peel, 1 in 55.	•••	
**Tinctura Qui- niæ Ammoniata.	Ditto			Sulphate(½), sol of ammonia (1), proof spi- rit (7), 1 in 55.		

а				1	4	1
	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••		Vide Quini	æ Sulphas.	1 to 2 fl. 3.
	Inferior barks.	Quantity of quinine present. Cascarilla whiter.	Cinchonine, cin- chonidine, quin- ine, quinidine, and quinamine, with other alka- loids and various acids (cincho- nine predomi- nating).	Tonic, antiperiodic, antipyretic, astringent, stimulant.	Fevers, malarious diseases, neuralgias, debility.	10 to 60 grs.
				<i>Vide</i> Quini	æ Sulphas.	1 to 2 fl. 3.
	Inferior barks. Yellow bark, beberu bark, larch bark. Red sandal- wood, logwood.	Quantity of quinine present. Vide C. flava. Bitter taste.	Ditto (quinine and cin- chonine predo- minating).	Tonic, antiperiodic, antipyretic, astringent, stimulant.	Fevers, malarious diseases, neuralgias, debility.	10 to 60 grs.
	Other sulphates, chalk, starch, magnesia, salicin, &c.	Quantitative test. Salicin strikes blood- red with sul- phuric acid.		Tonic, antiperiodic, antipyretic, stimulant.	Fevers, malarious diseases, neuralgias, debility.	1 to 10 grs. or more.
-	•••	•••	•••	Ditt	o	2 to 10 grs.
	•••	•••		Ditto		1 to 2 fl. 5.
	•••			Ditt	0	$\frac{1}{2}$ to 2 fl. 3.
-						

	Sou	RCE				
Substance	Botanical	Geographical	Geographical Part USED		CHARACTERS	
**Vinum Quiniæ.	Quiniæ sul- phas.		•••	Sulphate 30 grs., citric acid 30 grs., orange wine 1 pint.		
IPECACU- ANHA,	Cephaëlis Ipe- cacuanha.	Brazil.	Root.	•••	Size of quill, brown, annulated, so as to resemble a closely set string of beads strung on a white cord, faint nauseous odour and acrid taste.	
**Vinum Ipeca- cuanhæ.	Ipecacuanha.	•••	•••	Macerating in sherry, 1 iu 20.		
Trochisci Ipeca-cuanhæ.	Ditto	•••		Refined sugar, gum, and mucilage; ¹ / ₄ gr. in each.		
Trochisci Morphiæ et Ipecacuanhæ.	Ditto			Hydrochlorate of morphia, tineture of tolu, sugar, and gum, $\frac{1}{12}$ gr. of ipecacuauha and $\frac{1}{36}$ gr. of morphia in each.		
*Pulvis Ipecacu- anhæ Co.	Ditto	•••		Opium and sulphate of potash, 1 of ipecacuanha and 1 of opium in 10.		
Pilula Ipecacu- anhæ cum Scillå.	Pulvis Ipcca- cuanhæ Co.	•••		Squill, ammonia- cum, aud trea- cle, 1 part opium in 23½.		
Pilula Conii Co.	Ipecacuanha.	•••		Extractum conii and treacle.	•••	
CATECHU PALLIDUM (Pale Catechu).	Uncaria Gam- bir.	Singapore.	Extract from leaves and young shoots.		Cubes an inch in diameter, reddish brown outside, pale brick red in- side, bitter and astringent taste.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			Vide Quin	iæ Sulphas.	½ to 1 fl. 3.
(Impurity.) Almond meal in powdered ipecacuanha. Hemidesmus, sarsaparılla.	droeyanic acid after moisten- ing. These have not an annulated appearance, although he- midesmus has transverse	Emetin, ipecacuan- hic acid.	Emetic, expectorant, diaphoretic.		Emetic, 15 to 30 grs. Expectorant, $\frac{1}{2}$ to 2 grs.
	cracks.	•••	Ditto	Ditto	Emetic, 3 to 6 fl. 3. Expectorant,
			Ditto	Coughs.	5 to 40 m. 1 to 3.
•••		•••	Ditto	Ditto	1 to 6.
•••	•••		Diaphoretic.	Catarrh, febrile affections.	10 grs.
•••			Sedative, expectorant.	Coughs.	5 to 10 grs.
100	•••	·	Ditto	Ditto	5 to 10 grs.
		Catechin or cate- chuicacid, which gives a greenish precipitate with persalts of iron.	Astringent.	Hoarseness, dyspepsia, diarrhæa, hæmorrhage, and mucous discharges.	10 to 30 grs.

Substance	Source				
	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Infusum Catechu.	Catechu.	•••	•••	Infusing in boiling water.	•••
**Tinctura Cate- chu.	Ditto	•••		Cinnamon and proof spirit, 1 in 8.	
*Trochisci Catechu.	Ditto		•••	Sugar and gum,	
*Pulvis Catechu Co.	Ditto		•••	1 gr. in each. Kino, rhatany, cinnamon, and nutmeg, 2 in 5.	

VALERIANACEÆ.

VALERIANÆ RADIX (Valerian root).	Valeriana officinalis.	Briʻain.	Root.		Close bundle of fibrous roots springing from a short rhizome, strong disagree- able odour and taste.
Infusum Valerianæ.	Valerianæ radix.	•••	115	In boiling water, 1 in 40.	
*Tinctura Vale- rianæ.	Ditto	•••	•••	Proof spirit, 1 in 8.	•••
**Tinetura Valerianæ Ammoniata.	Ditto		•••	Aromatic spirit of ammonia, 1 in 8.	
Sodæ Valerianas.	Fusel oil.		•••	Distilling amy- licalcohol with sulphuric acid and bichrom- ate of potash, and saturat- ing the distil- late with soda.	Dry white masses which evolve the odour of valerian on the addition of sulphuric acid.
ZINCI VALE- RIANAS,	Sodæ valori- anas.		• • •	Mixing with sol. of sulphate of zinc, separat- ing and puri- fying crystals that form.	Pearly crystalline scales with smell and taste of valorianic acid; heated to redness leaves a residue of oxide of zinc.

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••	Astringent.	Hoarseness, dys- pepsia, diar- rhœa, hæmor- rhages, and mucous dis-	1 to 2 fl. z.
	•••	•••	Ditto	mucous dis- charges. Ditto	1 to 2 fl. 3.
		. •••	Ditto	Ditto	1 to 3.
		•••	Ditto	Ditto	20 to 40 grs.
					,
Serpentary, arnica, ve- ratrum vi- ride.	Smell.	Essential oil and valerianic acid.	Stimulant, anti- spasmodic.	Hysteria and hysterical affections.	15 to 30 grs.
***	•••		Ditto	Ditto	1 to 2 fl. 3.
	••	•••	Ditto	Ditto	1 to 2 fl. 3.
	•••		Ditto	Ditto	½ to 1½ fl. 3.
Sulphuric acid and free soda.	Neutral, entirely soluble in rect. spirit.			To make valerianate of zinc.	
Sulphate of zinc and butyrate of zinc.			Nervine tonic and antispasmodic.	Hysteria, chorea, epilepsy, ncuralgia.	½ to 4 grs.

Substance	Son	TRCE								
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS					
CO	COMPOSITÆ.									
Pxrethri Radix (Pellitory).	Anacyclus Pyrethrum.	Barbary, Spain, Le vant.	Root.		Cylindrical pieces, with thick brown bark and shining black points, frequently worm-eaten.					
Tinctura Pyrethri.	Pyrethri radix.	•••		With rectified spirit, 1 in 5.						
SANTONICA.	Undetermined species of Artemisia.	Russia.	Unexpanded flower heads.		About a line long, greenish brown, look like seeds.					
SANTONI- NUM (Santonin).	Santonica.	 e .ee		Boil santonica with milk of lime, strain and precipitate the santonin with hydrochloric acid, wash, precipitate with ammonia, dissolve in spt., treat with animal charcoal, and crystallise.	Square tabular white crystals, which turn yellow on exposure to light.					
ANTHEMIDIS FLORES (Camomile).	Anthemis nobilis.	England.	Flowers.		Like dried daisies, aromatic smell and bitter taste.					
*Infusum Anthe- midis.	Anthemidis flores.	•••	•	With boiling water, 1 in 20.						
ANTHEMIDIS OLEUM.	Ditto	,	•••	Distillation.	Pale blue or greenish blue, yellowish when old; odour and taste of flowers.					
*Extractum Anthemidis.	Ditto			Watery extract of flowers, with 15 m of oil for each pound of flowers.						

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
				1	
Horse-radish, taraxacum.	Profuse flow of saliva when chewed, light- er in colour than taraxa- cum.	Resin and volatile oil.	Sialagogue.	Paralysis of the mouth, tooth-ache, relaxed throat.	
			Ditto	Ditto	•••
Conium, caraway, fennel.	These are much smaller.	Volatile oil and santonin.	Anthelmintic.	To destroy round and thread worms.	10 to 60 grs.
		• 17.0	Ditto	Ditto	1 to 3 grs. for child, 2 to 6 grs. for adult.
		LEEDS & W			
	WE	DICO-CHIRURCI	CAL SOCIE.	T Y	
	•••	Volatile oil and bitter extractive matter.	Aromatic sto- machic, and tonic.	Dyspepsia.	
• • • • • • • • • • • • • • • • • • • •			Ditto	Ditto	1 to 4 fl. 3.
•••		·	Stimulant, carminative.	Addition to purgatives.	1 to 5 m.
•••			Ditto	Adjunct to pills, dyspepsia.	2 to 10 grs.
				-	

0-	Son	JRCE	:				
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS		
TARAXACI RADIX (Dandelion).	Taraxacum Dens leonis.	Britain.	Recent root.		Tapering root, yielding bitter milky juice, which becomes brown by exposure.		
*Succus Taraxaci.	Taraxaci radix.	•••	•••	Expressed juice with \(\frac{1}{4} \) of rectified spirit.	•••		
*Extractum Taraxaci.	Ditto	•••	•••	Boil expressed juice, strain, and evaporate			
Decoctum Taraxaci.	Ditto		•••	Dried root in boiling water, 1 in 20.			
LACTUCA (Lettuce).	Lactuca vi-	Britain.	Flowering plant.	•••			
Extractum Lactucæ.	Lactuca.		•••	Like other green extracts.			
ARNICÆ RADIX.	Arnica mon- tana.	Europe.	Root.	•••	Cylindrical, contorted, rough rhizome, with numerous slender fibres.		
*Tinctura Arni- cæ.	Arnicæ radix.			Rectified spirit, 1 in 20.			
LOE	LOBELIACEÆ.						
LOBELIA (Lobelia),	Lobelia in- flata.	United States.	Flowering herb.	•••	Oblong compressed cakes; peculiar odour, burning taste not at first apparent.		

How known	Composition	Action	Use	Dose				
lour than horse-radish; no pungency or feeling of numbness	bitter extractive and taraxacin.	Cholagogue.	Hepatic dis- order.					
	٠	Ditto -	Ditto	1 to 2 fl. 3.				
	•••	Ditto	Ditto	5 to 30 grs.				
		Ditto	Ditto	2 to 4 fl. 3.				
	Lactucin and lactucic acid.		•••	•••				
•••		Narcotic.	Causes sleep, and relieves cough.	3 to 50 grs.				
No smell; root- lets thinner than vera- trum viride, less numerous and contorted than serpen- tary.	Arnicin and essential oil.	Stimulant.	Bruises, sprains, and rheumatism.	•••				
•••		Ditto	Ditto	Internally ½ to 1 fl. 3.				
•••	Lobelic acid and lobelina.	Emetic, cathartic, expectorant, diaphoretic.	Spasmodic asthma, adjunct to diuretics.	•••				
	Darker in colour than horse-radish; no pungency or feeling of numbness when chewed. No smell; rootlets thinner than veratrum viride, less numerous and contorted than serpentary.	Darker in colour than horse-radish; no pungency or feeling of numbness when chewed. Lactucin and lactucic acid. No smell; rootlets thinner than veratrum viride, less numerous and contorted than serpentary. Lobelic acid and	Darker in colour than horse-radish; no pungency or feeling of numbness when chewed. Ditto Ditto Lactucin and lactucic acid. No smell; rootlets thinner than veratrum viride, less numerous and contorted than serpentary. Lobelic acid and lobelina. Lobelic acid and lobelina.	Darker in colour than horse-radish; no pungency or feeling of numbness when chewed. Lactucin and lactucic acid. No smell; rootlets thinner than veratrum viride, less numerous and contorted than serpentary. Lobelic acid and lobelina. Lobelic acid and lobelina. Resinous matter, Cholagogue. Hepatic disorder. Ditto Ditto Ditto Ditto Ditto Causes sleep, and relieves cough. Bruises, sprains, and rheumatism.				

SUBSTANCE	Sov	RCE	D	D	G				
DUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS				
*Tinctura Lobeliæ.	Lobelia.	•••		Proof spirit, 1 in 8.	•••				
*TincturaLobeliæ Ætherea	Ditto			With spirit of ether, 1 in 8.					
ERI	CACEÆ.								
UVÆ URSI FOLIA (Bearberry).	Arctosta- phylos Uva Ursi.	North Europe and America.	Leaves.		Dark green, shin- ing, leathery, about \(\frac{3}{4}\) inch long; astringent taste, smell like tea.				
*Infusum Uvæ Ursi.	Uvæ Ursi folia,	•••	•••	Boiling water, 1 in 20.					
SAI	SAPOTACEÆ.								
GUTTA PERCHA	Isonandra gutta.	Borneo, Su- matra, East- ern Archi- pelago.	Dried juice.	•••	Tough flexible pieces of light brown or chocolate colour. Soluble in chloroform and carbon disulphide; in warm water becomes soft, and is easily moulded.				
Liquor Gutta Percha.	Gutta percha.			Dissolve in chloroform, add carbonate of lead, and decant.					
STYRACEÆ.									
BENZOINUM (Benzoin).	Styrax Ben- zoin.	Siam and Sumatra.	Dried balsam.		Reddish-white tears or brownish-red masses.				

SUBSTANCES RESEMBLING IT OR ADUL TERATIONS	HOW WNOWN	Composition	Action	Use	Dose				
			Emetic, cathartic, expectoraut, diapho-	Spasmodic asthma, ad- junct to diu-	10 m to ½ fl. 3.				
			retic. Ditto	retics. Ditto	Ditto				
		,							
Red whor-	Should be reticulated, not dotted beneath, and margins entire.	Tannin, bitter extractive, &c.	Astringent, diuretic.	Irritation or mucous discharge from bladder and urethra.	10 to 30 grs.				
•••	•••	•••	Ditto	Ditto	1 to 2 fl. 3.				
		Gutta, crystalline resin, aud amorphous resin.		Making splints and water- proof cloth.					
•••				To prepare charta sinapis.	•••				
Ammoniacum, galbanum, assafætida, myrrh, Burgundy pitch.	Smell and taste.	Benzoic acid and resins.	Stimulant, expectorant.	Bronehitis.	10 to 30 grs.				
		1							

SUBSTANCE	Source				
	Botanical	Geographical	Part used	PREPARATION	CHARACTERS
ACIDUM BENZOI- CUM.	Bonzoinum.		•••	Dry distillation.	White flexible crystals, with pearly lustre.
Tinctura Benzoini	Ditto			Benzoin (4), prepared sto- rax(3),balsam of tolu (1), Socotrine aloes (\frac{2}{3}), rec- tified spirit (40).	***
Ammoniæ Benzoas.	Benzoic acid.			Dissolving the acid (2) in solution of ammonia (3) and water (4), and crystallising.	Colourless laminar crystals.
OLEACEÆ.					
OLIVÆ OLEUM (Olive oil).	Olea euro- pæa.	Southern Europe.	Ripe fruit.	Expression.	Pale yellow oil, slight odour and bland taste.
SAPO DURUS (Hard Soap).	Olivæ oleum.	•••		Boiling with soda.	Greyish white, sometimes marbled blue or red.
Sapo Mollis (Soft Soap).	Ditto	•••	•••	Boiling with potash.	Yellow, soft, inodorous.
GLYCERI- NUM (Glycerino).	Animal or vegetable oils.			Decomposition by superheated steam,	Colourless or slightly yellow liquid, sweet taste.

SUBSTANCE RESEMBLING IT OR ADUL TERATIONS	HOW KNOWN	Composition	ACTION .	Use	Dose
			Expectorant, stimulant, diuretic.	Bronchitis, inflammation of bladder.	10 to 15 grs.
		·	Expectorant, stimulant.	Bronchitis, ulcers.	$\frac{1}{2}$ to 1 fl. 3.
			Diuretic.	Diseases of bladder.	10 to 20 grs.
Other oils.	Specific gravity; small amount of heat evolved by olive oil with sulphuric acid, compared with other oils.	Olein and palmitin.	Demulcent, emollient.	In irritant poisoning. To make soaps and liniments.	1 fl. 3. to 1 fl. 3.
				To make pills, plasters, and liniments.	
•••	•••			Ditto	
			Emollient.	Skin diseases, applied in lotions.	
					1

Substance	Sou	RCE			
	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Emplastrum Cerati Saponis.	Hard soap.			Hard soap (8), yellow wax (10), olive oil (16), oxide of lead (12), vinegar (28).	
Emplastrum Saponis.	Ditto		•••	Hard soap (6), litharge plaster (36), resin (1).	
Linimentum Saponis.	Ditto			Hard soap (20), camphor (10), oil of rose- mary (3), rec- tified spirit (144), water (16).	•••
* Glycerinum Acidi Carbolici.	Glycerine.		•••	Dissolving carbolic acid (1) in glycerine (4).	
* Glycerinum Acidi Gallici.	Ditto	•••	•••	Dissolving gallic acid (1) in glycerine (4).	
*Glycerinum Acidi Tannici.	Ditto			Dissolving tannic acid (1) in glycerine (4).	
* Glycerinum Amyli.	Glycerine.		•••	Mixing and heating to a jelly glycerine (8) with starch (1).	
* Glycerinum Boracis.	Ditto			Dissolving borax (1) in glycerine (4).	
Manna.	Fraxinus ornus and Fraxinus rotundifolia.	Sicily.	Exudation from bark.		White flakes discoloured by the bark on one side, or tears, sweetish odour and taste.

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			Adhesive and stimulant.	Corns.	
	•••		Ditto	.	
			Stimulant.	Rheumatism, bruises, sprains, &c.	•••
			Disinfectant.	Offensive and unhealthy sores.	
			Styptic, astringent.	Internal hæmorrhages, sore throat.	•••
			Astringent, styptic.	Sore throat, mucous dis- charges, local and internal hæmorrhages.	
•••		***	Emollient.	Cracks and abrasions of skin, &c.	
	•••		Ditto	Aphthæ.	•••
		Mannite.	Laxative.	Constipation in children.	60 grs. to ½ 3.

Substance	Sor	JRCE						
CONTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS			
LOG	LOGANIACEÆ.							
NUX VOMI-	Strychnos Nux Vomi- ca.	•••	Seeds.		Grey seeds, flat or depressed in the centre, thick- ly covered with hairs; very bit- ter taste.			
Extractum Nucis Vomicæ.	Nux vomica.	•••	*	Macerating powdered seeds in spirit and partially ovaporating, 1 lb. seeds to 1 3 extract.				
**Tinctura Nu- cis Vomicæ.				Macerating and percolating powdered seeds in spirit, 2 3 seeds to 1 pint tincture.				
STRYCHNIA.	Nux vomica.	•••	•••	Exhausting powdered seeds in spirit, precipitating acid and colouring matter by acetate of lead, precipitating strychnia and brucia by ammonia, dissolving in spirit and crystallising out the strychnia.	Four-sided prisms, colourless and inodorous; intensely bitter.			
**Liquor Strych- niæ.	Strychnia.			Dissolving strychnia in rectified spirit, and slightly acidulating with hydrochloric acid, 4 grs. in 1 fl. 5.	•••			

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		Strychnia, brucia, igasuric or strychnic acid.	Increases reflex excitability of spinal cord and ganglia.	Dyspepsia, constipation, debility, paralysis, impotence.	•••
			Ditto	Ditto	$\frac{1}{2}$ to 2 grs.
			Ditto	Ditto	10 to 20 m.
Brucia from imperfect preparation.	No red colour with nitric acid.	•,•	Ditto	Ditto	1/30 to 1/8 gr,
	•••		Ditto	Diţto	5 to 10 m.

SUBSTANCE	So	URCE				
	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
AS	CLEPIADA	CEÆ.				
Hemidesmi Ra- Dix (Hemidesmus root).	indicus.	India.	Root.		Dark yellowish- brown pieces, about the thick- ness of a quill, with deep eircu- lar cracks; some- what fragrant smell, agrecable bitter taste.	
desmi.	radix.	•••	•••	Hemidesmus (1), sugar (7), and water (5).		
GENTIANÆ RADIX.	Gentiana lu-		Root.		Long yellowish- brown pieces, often split in two, and the edges turned in; sweet odour, bit- ter taste.	
Extractum Gentianæ.	Gentianæ radix,		***	Maceration, deeoction, and evaporation.	···	
*Infusum Gen- tianæ Co.	Ditto		•••	With bitter orange peel, fresh lemon peel, and boiling water, 1 in 80.		
Mistura Gentianæ.	Ditto			With bitter orange peel, coriander, spirit, and water, 1 in 40.		
	Ditto		•••	Bitter orange peel, carda-	•••	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
Sarsaparilla, ipecacuanha,	Circular cracks,	is probably a	diuretic and	Syphilis, renal diseases.	
senega.		volatile acid.	diaphoretic.		
				Flavouring.	1 to 2 fl. 3.
•••		Gentio-picrin and gentianic acid.	Bitter tonic.	Dyspepsia, de- bility.	10 to 30 grs.
		•••	Ditto	Ditto	2 to 10 grs.
			Ditto	Ditto	1 to 2 fl. z.
	•••	•••	Ditto	Ditto	$\frac{1}{2}$ to 1 fl. $\bar{3}$.
			Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.

SUBSTANCE	So	URCE				
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
CHIRATA (Chiretta).	Ophelia Chirata.	Northern India.	Entiro plant.		Pale brown stems, generally doubled up several times; bitter taste.	
*Infusum Chiratæ.	Chirata.	•••	•••	Water at 120° Fahr., 1 in 40.	• • •	
*Tinctura Chiratæ.	Ditto			Proof spirit, 1 in 8.		
COI	NVOLVULA	CEÆ.				
Scammoniæ Radix -(Scammony root).	Convolvulus Scammonia.	Syria and Asia Minor.	Root.		Greyish-brown woody cylindri- cal pieces, 2 to 3 inches diameter, often spirally twisted.	
SCAMMO- NIUM (Scammony).	Ditto		Gum resin.	Incision in living root.	Irregular blackish- green brittle masses, covered with powder, cheesy smell and taste, forms an emulsion with water.	
SCAMMONII RESINA.	Ditto, dried root.	•••		Macerating with alcohol.	Brown translucent brittle pieces, sweet smell, forms no emulsion with water.	
Confectio Scam- monii.	Scammonium.	•••		Scammony (48), ginger (24), oil of caraway (2), oil of cloves (1), sy- rup (48), ho- ney (24).	•••	
*Pulvis Scammo- nii Co.	Ditto		•••	Scammony (4), jalap (3), gin- ger (1).	•••	
*Mistura Scam- monii.	Scammonii re- sina.		•••	With milk, 2 grs. in 1 fl. 3.		

-	SUBSTANCES RESEMBLINO IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
	Dulcamara, Lobelia in- flata, Indian hemp.	Bitter taste and thin stems.	Ophelic acid and chiratin.	Like 6	cntian.	
		•••		Di	tto	1 to 2 fl. 3.
				Di	tto	$\frac{1}{2}$ to 2 fl. 3.
-						
	Belladonna root.	Large size of scammony.	Resin.	Vide Scan	Vide Scammonium.	
	(Impurity.) Chalk.	No effervescence with acids.	Jalapin and gum.	Cathartic.	Constipation, dropsy, cere- bral disease.	5 to 10 grs.
(Juaiacum.	Tincture does not give blue colour with potato.		Ditto	Ditto	3 to 8 grs.
		,	•••	Ditto	Ditto	10 to 30 grs.
				-		
	•••	* ; *	•••	Ditto	Ditto	10 to 20 grs.
		,		Ditto	Ditto	$\frac{1}{2}$ to 2 fl. $\frac{\pi}{2}$.

Substance	So	URCE			
COBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
** Pilula Scammonii Co.	Scammonii resina.			Resin of scammony (1), resin of jalap (1), curd soap (1), tincture of ginger (1), rectified spirit (2).	,
JALAPA (Jalap).	Exogonium Purga.	Mexico.	Tubercles.	Drying.	Dark brown, ovoid, from the size of a hazel-nut to that of an orange, coffee-like odour and disagreeable taste.
JALAPÆ RE- SINA.	Jalapa.	•••	•••	Exhausting with rectified spirit.	Dark brown opaque fragments, trans- lucent at the edges.
Extractum Jalapæ.	Ditto			Treating with rectified spirit and with water, mixing the extracts and evaporating.	
* Pulvis Jalapæ Co.	Ditto	•••	***	Jalap (5), acid tartrate of pot- ash (9), gin- ger (1).	
* Tinctura Jalapæ.	Ditto	•••	•••	Macerating in proof spirit, 1 in 8.	
SOL	ANACEÆ.				
Dulcamara (Dulcamara).	Solanum Dul- camara.	Britain.	Young branches.	Drying.	Brown twigs, about the size of goose- quills; sweetish bitter taste.
Infusum Dulca- maræ.	Dulcamara.			In boiling water, 1 in 10.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			Cathartic.	Constipation, dropsy, cere- bral disease.	5 to 15 grs.
					٠
•••		Resin.	Ditto	Ditto	
Aloes.	Not bitter.	Jalapin and resin.	Ditto	Ditto	2 to 5 grs.
	•••		Ditto	Ditto	5 to 15 grs.
•••			Ditto	Ditto	10 to 30 grs.
			Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.
Chiretta.	Thicker stems and no flowers.	Solanine, dulca- marine, and su- gar.	Diaphoretic, diuretic, de- mulcent.	Chronic bron- chitis, gout, rheumatism, skin diseases.	
				Ditto	1 to 2 fl. ξ.

SUBSTANCE	So	Source			-
COBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
CAPSICI FRUCTUS (Capsicum fruit).	tigiatum.	Zanzibar.	Ripe fruit.		Scarlet oblong pods ½ to ¾ of an inch long, hot
Tinetura Capsici.	Capsici fructus.	•••	•••	In rectified spirit, 3 in 80.	acrid taste.
AT	ROPACEÆ.				1
BELLADON- NÆ FOLIA (Belladonna leaves).	Atropa Belladonna.	England and Germany.	Leaves.		Brownish leaves, 3 to 6 inches long, ovate, acute, and soft, emit a fætid odour when bruised.
*Unguentum Belladonnæ.	Extractum Belladonnæ.		•••	Mixing with lard, 80 grs. in 1 3.	
*Emplastrum Belladonnæ,	Ditto		•••	Mixing with spirit and resin plaster.	
*Succus Bella- donnæ.			Fresh leaves and young branches.	Bruising, expressing juice, and adding 4 of rectified spirit.	
Extractum Bella-donnæ.	•••	***		Like other green extracts.	
*Tinctura Bella- donnæ.	Belladonnæ folia.	•••	•••	1 in 20.	•••
BELLADON- NÆ RADIX.	Atropa Belladonna.	•••	Root.	•••	Branched on a tapering root 1 to 2 ft. long, ½ to 2 in. thick, of a brownish-white colour.
*Linimentum Bel- ladonnæ.	Belladonuæ radix.		•••	Exhausting in spirit and adding camphor, 1 in 1.	

			1		
SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
Powder sometimes adulterated with red lead.		Capsicin.	Stimulant, rube-facient.	Sore throat, dyspepsia, diarrhœa.	$\frac{1}{2}$ to 1 gr.
			Ditto	Ditto	5 to 20 m. As gargle, same quan- tity per fl. 3.
Stramonium leaves and hyoscyamus leaves.	Less wrinkled than stramo- nium, and stalk not hairy.	Atropia and asparagine.	Vide A	Atropia.	
			Sedative.	Rheumatism, neuralgia.	
•••	•••		Ditto	Ditto	•••
			Vide A	tropia.	5 to 15 m.
•••			Dit	to	$\frac{1}{6}$ to 1 gr.
***		···	Dit	to	5 to 30 m.
	•••	Atropia and belladonnine.			
•••				Rheumatic pains, &c.	
					1

SUBSTANCE	Sou	IRCE	77		
SUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS
ATROPIA	Belladonnæ radix	 Y	Young root.	Exhausting with spirit, precipitating acid and colouring matter by lime, adding sulphuric acid to form sulphate, distilling off spirit, precipitating resinous matter by carbonate of potash, dissolving out atropia by chloroform, which is distilled off, dissolving in warm spirit, decolorising by charcoal, and crystallising.	
Liquor Atropiæ.	Atropia.			Dissolving in water and adding rectified spirit, 1 in 110.	
Unguentum Atropiæ.	Ditto			Dissolving in rectified spirit and adding lard, about 1 in 55.	
ATROPIÆ SULPHAS.	Ditto			Dissolving in water, neutralising with sulphuric acid, and evaporating at 100°.	Colourless powder.
**Liquor Atropiæ Sulphatis.	Atropiæ Sulphas.	•••		In water, 4 grs. in 1 fl. 3.	
STRAMONII FOLIA (Stramonium leaves).	Datura Stra- monium.	Britain.	Leaves.	Drying.	Large ovate toothed leaves, dark green co- lour, rank odour.

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Acrion	Use	Dose
	•••		Dilates pupil, lessens pain and secretion, stimulates re- spiration and circulation.	Eye disease, neuralgia and rheumatism, constipation, incontinence of urine, polyuria, sweating, salivation, nervous diseases.	
	LE	EDS & WEST	RIDING		
	MEDIC	D-CHIRURCICAL	SOCIETY		
···	·	•••			
Belladonna leaves and hyoscya- mus leaves.	More wrinkled than bella- donna; leaf- stalk not hairy.	Daturia.	Like Atropia.	Smoked for asthma.	1 grain up- wards.

1			1		,
	So	URCE			
SUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS
STRAMONII SEMINA (Stramonium seeds).	Datura stra- monium.	Britain.	Seeds.	••	Brownish black, kidney-shaped, and rough.
Extractum Stra- mouii.	Stramonii semina.			Removing oil by ether, and extracting with spirit.	
Tinetura Stra- monii.	Ditto			1 in 8.	•••
HYOSCYAMI FOLIA (Hyoscyamus leaves).	Hyoscyamns niger.	Britain.	Leaves.	Drying.	Woolly stem; disagreeable smell.
Succus Hyos- cyami.	Hyoscyami folia.	***	Fresh leaves and young branches.	Expressed juice with $\frac{1}{4}$ of spirit.	
Extractum Hy- oscyami.	Ditto	*	Ditto	Like green ex- tracts.	•••
*Tinctura Hyos- cyami.	Ditto		Dried leaves.	1 in 8.	***
TABACI FOLIA (Tobacco leaves).	Nicotiana Tabacum.	Tropical America,	Leaves.		Large ovate leaves; peculiar smell.
Enema Tabaci.	Tabaci Folia.			20 grs. in 8 oz. of boiling water.	
SCR	OPHULAR	IACEÆ.			
DIGITALIS FOLIA (Digitalis leaves).	Digitalis purpurea.	Britain.	Leaves.	Drying.	Large, wrinkled. with prominent veins on the under side.
**Infusu n Digi- talis.	Digitalis folia.			30 grs. in 10 fl. 3.	•••

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
•••		Daturia.		***	
			Like Atropia.	Asthma and gastrodynia.	½ to ½ gr
			Ditto	Ditto	10 to 30 m.
Belladonna leaves and stramonium leaves.	Leaf-stalk hairy.	Hyoscyamia.	Like Belladonna, but less power- ful.	Prevent griping, diminish pain, cough, and spasm.	
	•••		Ditto	Ditto	30 m to 1 fl. 3.
***		•••	Ditto	Ditto	5 to 10 grs.
			Ditto	Ditto	30 m to 1 fl. 5.
		Nicotia, and nico- tianin or tobacco camphor.	Irritant, cardiae sedative, and diuretic.	As snuff in cerebral affections, as smoke in ast hma.	
•••		•••	Ditto	To produce mus- eular relaxa- tion in hernia and ileus.	
Matico.	Less deeply reticulated than matico.	Digitoxin, digitatalin, digitalin, digitaliresin, &c.	Slows and strengthens the heart, contracts the vessels, increases the urine.	Cardiac diseases, palpitation, dropsy, hæmorrhage	½ gr. to 2 grs.
•••	***		Ditto	Ditto	2 5 to ½ 5.

SUBSTANCE	Sou	RCE	T		
	Botanical	Geographical	PART USED	Preparation	CHARACTERS
**Tinctura Digi- talis.	Digitalis fo-			1 in 8.	•••
Digitalinum (Digitalin).	Ditto	•••		Dissolving out digitalin from alcoholic extract by acetic acid and water, decolorising with animal charcoal, precipitating by ammonia and tannic acid, decomposing precipitate with lead oxide, dissolving in spirit, and purifying with animal charcoal and ether.	

LABIATÆ.

ROSMARINI OLEUM (Oil of Rose- mary).	Rosmarinus officinalis.	South Enrope.	Flowering tops.	Distillation.	Colourless, with the fragrant odour and taste of the plant.
Spiritns Ros- marini.	Rosmarini oleum.			With rectified spirit, 1 in 49.	
LAVANDULÆ OLEUM (Oil of Lavender).	Lavandula vera.	Britain.	Flowers.	Distillation.	Colourless or pale yellow, fragrant odour, bitter aromatic taste.
Spiritus Lavan- dulæ.	Lavandulæ oleum.	•••		With rectified spirit, 1 in 49.	•••
**Tinctura La- vandulæ Co.	Ditto			Maccration with oil of rosemary, cin- namon, nut- meg, red san- dal-wood, and rectified spirit. 1 in 220.	

			the state of the s			
	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Üse	Dose
	•••	•••	Is a mixture of several principles.	Vide Digitalis.	Vide Digitalis.	5 to 30 m.
I	***	•••	Vide Digitalis.	Ditto	Ditto	1/30 gr.
	•••		•••	Stimulant.	Hysteria, nervous head-aches.	1 to 5 m.
				Ditto	Ditto	$\frac{1}{2}$ to 1 fl. 3.
				Stimulant, carminative.	Hysteria, hypochondriasis, colic.	1 to 5 m.
-				Ditto	Ditto	½ to 1 fl. 3.
		•••		Ditto	Ditto	½ to 2 fl 3.

Substance	Sou	RCE					
SOBSIENCE.	Botanical	Geographical	PART USED	PREPARATION	Characters		
MENTHÆ PIPERITÆ OLEUM (Oil of Pepper- miut).	Mentha piperita.	Britain.	Whole plant.	Distillation.	Colourless or pale yellow, agree- able odour and aromatic taste.		
**Aqua Menthæ Piperitæ.	Mentha pi- peritæ oleum.			Distilling with water, ½ fl. 3 in 1 gallon.			
*Essentia Menthæ Piperitæ.	Ditto			With rectified spirit, 1 in 4.	•••		
Spiritus Menthæ Piperitæ.	Ditto		•••	1 in 50.			
MENTHÆ VIRIDIS OLEUM (Oil of Spearmint).	Mentha viridis.	Europe, Asia, America.	Fresh plants.	·	Colourless or pale yellow, pleasant odour and taste.		
Aqua Menthæ Viridis.	Menthæ viridis oleum.			Distillation with water, $\frac{1}{2}$ fl. 3 in 1 gallon.			
Sub-class IV.—APETALÆ. POLYGONACEÆ.							

RHEI RADIX (Rhubarb root).	Rheum.	Tartary and Thibet.	Root.	Drying.	Irregularly shaped pieces of a yellow colour, often pierced with a hole, gritty when chewed, having a bitter taste and peculiar odour.
Extractum Rhei.	Rhei radix.			Rhubarb (16), water (100), rectified spirit (10), by ma- ceration and evaporation.	
Infusum Rhei.	Ditto	***	**,	In water, 1 in 40.	•••

SUBSTANCES RESEMBLING IT OR ADULTERATIONS	Ном кмэмм	Composition	Action	Use	Dose
	•••		Stimulant, carminative.	Flatulence, adjunct to purgatives.	1 to 5 m.
•••			Ditto	Ditto	1 to 2 fl. 5.
	•••	•••	Ditto	Ditto	10 to 20 m.
•••	•••		Ditto	Ditto	$\frac{1}{2}$ to 1 fl 3.
			Ditto	Ditto	1 to 5 m.
	•••	•••	Ditto	Ditto	1 to 2 fl. 3.
(Impurities.) English rhubarband turmeric.	Taste and odour; turmeric is reddoned by boraeic acid.	Chrysophanic and rheo-tannic acids and resins.	In small doses astringent, in largo pur- gative.	Incipient diar- rhœa, atonic dyspepsia.	Stomachic to 5 grs purgative 10 to 30 gr
			Ditto	Ditto	5 to 15 grs.
			Ditto	Ditto	1 to 2 fl 5.

Substance	Se	OURCE		1	
	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
**Pilula Rhei Co.	Rhei radix.		•••	Rhubarb (16), Socotrine aloe (12), myrrh (8), hard soap (8), oil of pep- permint (1), treacle (32).	s
**Pulvis Rhei Co.	Ditto			Rhubarb (2), light mag- nesia (6), gin- ger (1).	
Syrupus Rhei.	Ditto	•••		Rhubarb (1), coriander (1), sugar (12), rectified spirit (4), water (12).	# ···
Tinctura Rhei.	Ditto	•••		Rhubarb (8), cardamoms (1), coriander (1), saffron (1), proof spirit (80), by maceration.	
Vinum Rhei.	Ditto			Rhubarb (11), canella alba bark (1), sherry (9).	
MYI	RISTICACE	Æ.			
Myristica (Nutmeg).	Myristica officinalis,	Bunda islands of Malayan Archipelago.	Kernel of seed.		Ovoid, marked with furrows, greyish red internally, netted with dark brownish veins, peculiar odour, aromatic bitter taste.
Myristicæ Olcum (Volatile Oil).	Myristica.			Distillation.	Colourless or straw yellow, odour and taste of nutmeg.

SUBSTANCES RESEMBLING IT OR ADUL TERATIONS	How known	Composition	Action	Use	Dose
		•••	In small doses astringent, in large pur- gative.	Incipient diar- rhœa, atonic dyspepsia.	5 to 10 grs.
			Stomachic, tonic, laxa- tive.	Dyspepsia.	Children, 5 to 10 grs.; adults, 20 to 60 grs.
•	LEEDS &W	EST-RIDING	Vide Rhe	ei Radix.	1 to 4 fl. 5.
ME	DICO-CHIRUR Ç	CAL SOCIET	-		
			Di	Stomachic, 1 to 2 fl 5; purgative, ½ to 1 fl. 3.	
•••		•••	Ditto		1 to 2 fl. 5.
Areca nut.	Odour.	Volatile oil and fixed oil.	Stimulant, carminative.	Adjunct to astringents.	5 to 15 grs.
			Ditto	Ditto	1 to 5 m.

SUBSTANCE	Source				
DOBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Spiritus Myristicæ.	Myristicæ oleum.	•••	•••	Mixing with spirit, 1 in 50.	
Myristicæ Oleum Expressum (Concrete Oil).	Myristica.			Expression and heat.	Orange colour, firm, with smell of nutmeg.
LAU	JRACEÆ.			1	
CINNAMOMI CORTEX (Cinnamon Bark).	Cinnamo- mum zey- lanicum.	Ceylon.	Inner bark.		Pale brown quilts about the size of a pencil, containing smaller quilts, brittle, aromatic odour, and agreeable warm taste.
*Pulvis Cinnamomi Co.	Cinnamomi cortex.			Mixing with equal parts of cardamoms and ginger.	
*Aqua Cinnamomi.	Ditto			Distilling with water.	***
*Tinctura Cinna- momi.	Ditto		.:.	1 in 8.	
CINNAMOMI OLEUM.	Ditto	Ceylon.		Distillation.	Yellow or reddish, odour of cinnamon.
CAMPHORA (Camphor).	Camphora officinarum.	China and Japan.		Sublimation from wood.	White semitrans- parent masses, characteristic odour, taste pungent and cold.

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose ·
		***	Stimulant, car- minative.	To flavour mix-	30 to 60 m.
•••			Local stimu- lant.	Chronic rheumatism; adjunct to plasters.	
Cassia.	Cassia is thicker and rougher than the cinnamon bark. If in powder, cassia may be detected by the decoction giving a deep blue-black tint with tincture of iedine.	Essential oil, tannin, &c.	Tonic, carminative, astringent.	Dyspepsia, diarrhœa, ad- junct to pur- gatives.	10 to 20 grs.
			Ditto	Ditto	3 to 10 grs.
			Ditto	Ditto	1 to 2 fl. \(\frac{7}{3}\).
			Ditto	Addition to astringents, tonics, and purgatives. Uterine hæmorrhage.	$\frac{1}{2}$ to 2 fl. 5.
•••		 ,	Ditto	Adjunct to medicines.	1 to 3 m.
(Impurities.) Borneo camphor. Fixed salts.	Specificgravity. Borneo camphor sinks in water. Sublimation.		Irritant, antiseptic, stimulant, antispasmodic.	Rheumatism, adynamic fevers, spas- modic and mental dis- cases, sexual disorders.	1 to 10 grs.

Substance	Source				
- CONTANCE	Botanical Geographica		PART USED	PREPARATION	CHARACTERS
* Linimentum Camphoræ.	Camphora.	•••	•••	Camphor and olive oil, 1 in	•••
** Linimentum Camphoræ Co.	Ditto	•••		5. Mixing with oil of lavender, strong ammo-	
** Aqua Cam- phoræ.	Ditto	4 0 0	•••	nia, aud spirit, 1 in 8. Dissolving in	
Spiritus Camphoræ.	Ditto	***	***	water. Dissolving in	* * *
Tinctura Cam- phoræ Co.	Ditto		•••	spirit, 1 in 10. Mixing with opium, benzoic acid, oil of anise, and spi-	
Sassafras Radix (Sassafras root).	Sassafras officinale.	North America.	Root.	rit.	Large branched pieces or chips, bark greyish brown outside, rusty brown inside, wood greyish yellow; agrecable odour, warm aromatic taste.
NECTANDRÆ CORTEX (Bebceru bark).	Nectandra Rodiæi.	British Guiana.	Bark.		Flat pieces, 1 or 2 feet long, ½ inch thick, 2 to 3 inches broad, greyish brown outside, dark einnamon brown inside; strong bitter and astringent taste.
Beberiæ Sul- Phas.	Nectandræ cortex.	•••		Exhausting by water and sulphuric acid, precipitating colouring matter by lime, filtering, precipitating beberia by ammonia, purifying the solution in spirit, afterwards in dilute sulphuric acid, and evaporating.	Dark brown thin translucent scales, strong bitter taste; gives white precipitate with chloride of barium, with caustic soda a yellowish-white precipitate soluble in other.

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS Local stimulant. Bruises, rheumatism, large glands, &c. Bronchitis, rheumatism.	Dose 1 to 2 fl. 3.
lant. matism, large glands, &c. Ditto Bronchitis,	
Ditto Bronchitis,	
	1 to 2 fl. z̃.
!Vide Camphor. As a vehicle. 1 t	9
Ditto Vide Camphor. 10	10 to 30 m.
Vide Opium. Coughs. 15	l5 m to 1 fl. 3.
Quassia. Aromatic taste. Volatile oil, and tannic acid. Stimulant, sudorific. Cutaueous diseases, syphilis, and rheumatism. In Decoctum Sarsæ Co.	
Cinchona bark. No splintery fracture. Beberia, apparently identical with buxine. Beberia, apparently identical periodic. periodic head-aches.	
Ferrum tartaratum. Bitter taste, and is entirely destroyed by heat. Ditto Ditto	1 to 10 grs.

Substance	Source								
150 BSTANCIA	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS				
AR	ARISTOLOCHIACEÆ.								
SERPENTARIÆ RADIX (Serpentary root).	Aristolochia Serpentaria.	United States.	Root.		Small rhizome, with numerous slender rootlets; camphoraceous odour and taste.				
*Infusum Serpentariæ.	Serpentariæ radix.	•••	•••	1 in 40.					
*Tinctura Serpen- tariæ.	Ditto		•••	1 in 8.					
THY	MELACEÆ	5.							
Mezerei Cortex (Mezereon bark).	Daphne Mezereum, spurgo laurel.	England.			Thin flat or curled pieces, tough and flexible, brown outside, white inside; slight odour, hot and acrid taste.				
Extractum Mezerei Æthereum.	Mezerei cortex.			Macerating in spirit, extracting with ether, and evaporating.					
EUPHORBIACEÆ.									
CASCARILLÆ CORTEX (Cascarilla bark).	Croton Eluteria.	Bahamas.	Bark.	•••	Quills 2 or 3 inches long, about the size of a pencil, dull brown, coated with white spots of lichens; warm and bitter taste.				

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
Valcrian, ar- nica, vera- trum viride.	valerian, by	Essential oil and aristolochin.	Tonic, diaphoretic.	Dyspepsia, rheumatism, fevers.	
			Ditto	Ditto	1 to 2 fl. z.
•••			Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.
·					
		Acrid resinoid substance, acrid volatile oil, crys- tallisable sub- stance daphnin.	Local irritant, emetic, purga- tive, diapho- retic, diuretic.	Rheumatism, syphilis, scro- fula.	
•••		•••	Ditto	In Linimentum Sinapis Co.	
Palecinchona bark.	Smaller and smoother.	Volatile oil, resin, bitter principle cascarillin.	Tonic, stimu- lant, expecto- rant.	Debility, dys- popsia, bron- chitis.	10 to 30 grs.

Substance	Source		1			
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
*Infusum Cascarillæ.	Cascarillæ eortex.			1 in 10.		
Tinctura Cascariilæ.	Ditto	•••		1 in 8.		
OLEUM CROTONIS (Croton Oil).	Croton Tiglium.	East India.	Seed.	Expression.	Yellow, viseid; disagreeable odour, acrid taste. Seeds are pale grey, oval, marbled with darker spots and lines.	
** Linimentum Crotonis.	Oleum crotonis.			Mixing with cajuput oil and spirit, 1 in 8.		
RICINI OLEUM (Castor Oil).	Ricinus communis.	East Indies and Ame- rica.	Seed.	Expression.	Thick, colourless; peculiar disgusting odour and taste. Entirely soluble in 1 vol. of alcohol and 2 of rectified spirit.	
KAMALA (Kamala).	Rottlera tinctoria.	East India.	Powder adhering to eapsules.		Orange-red or brick-redgranular powder. Aleoholic solution poured into water emits a melon-like odour.	
PIP	ERACEÆ.					
Piper Nigrum (Black Pepper).	Piper nigrum.	East India.	Unripe fruit.	Drying.	About the size of a small pea, black, wrinkled; strong hot odour and taste.	
*Confeetio Piperis.	Ditto			Powdered pepper (2), earaway (3), honey (15).		

Substan resembl it or At teratio	ING How known	Composition	Action	Use	Dose
•••	•••		Tonic, stimulant, expectorant.	Debility, dyspep	1 to 2 fl. \(\frac{1}{5}\).
•••			Ditto	Ditto	$\frac{1}{2}$ to 2 fl. 3.
Castor-oi seeds.	More uniform colour that castor oil,		Local irritant, drastic purga- tive.	Externally in thoracic and cerebral inflammations, internally in constipation, dropsy, paralysis, uræmia.	$\frac{1}{3}$ to 1 m.
			Local irritant,	Inflammations.	
Croton-oil seeds.	Vide supra,	An alkaloid ricinia, palmitic, ricinoleic, and other fatty acids.	Mild purgative.	Constipation, inflammations, &c.	1 fl. 3 to 1 fl. 3.
Oxide or iodide of mercury. Powdered cantharid	Not so heavy. No glistening green specks.	Resin.	Anthelmintic, purgative.	Tape-worm.	30 grs. to 4 3.
Pimenta, cubebs.	Has no calyx, and is more wrinkled than pimenta. No tail.	Piperin, volatile oil, resin.	Stimulant, sto- machic, rube- facient.	Dyspepsia, flatulence, diarrhæa.	Pepper 5 to 20 grs., piperin 5 grs.
•••	 		Stimulant, sto- machic.		60 to 120 grs.

Substance	Source						
150BSTANCE	Botanieal	Geographical	PART USED	PREPARATION	CHARACTERS		
Piper Longum.	Piper longum.	Eastern Archipelago.	Unripe fruit.	Drying.	Light grey spikes about 1½ inch long, consisting of minute fruits on a common axis.		
CUBEBA (Cubebs).	Cnbeba officinalis.	Ditto	Unripe fruit.	Drying.	Like black pepper, but of a lighter colour, and hav- ing a small stalk attached.		
Oleum Cubebæ.	Cubeba.			Distillation.	Colourless or pale greenish yellow, with odour of cubebs.		
Tinctura Cubebæ.	Ditto		•••	1 in 8.	• •••		
Maticæ Folia (Matico leaves).	Artanthe elongata. Piper angustifolium.	Peru.	Leaves.		Light green brittle masses of com- pressed leaves and stems, aro- matic odour and taste.		
Infusum Maticæ.	Maticæ folia.		•••	1 in 20.			
LIQ	UIDAMBAI	RACEÆ.					
STYRAX PRÆPA- RATUS (Prepared Storax).	Liquidambar orientale.	Asia Minor.	Resin from inner bark.	Boiling and purifying by treating with rectified spirit.	Greyish brown, opaque, of the consistence of honey, aromatic odour and pungent aromatic taste.		
ULN	ULMACEÆ.						
ULMI CORTEX (Elm bark).	Ulmus campestris.	Britain.	Inner bark.	Drying.	Broad flat light brown picees, odourless, slightly bitter and astrin- gent taste.		

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose		
		Vide Piper	Nigrum.				
Pipernigrum.	Has a tail.	Volatile oil, cu- bebin, resin.	Stimulates mu- cous membrane of bladder and urethra.	Gonorrhea.	30 to 120 grs.		
		·		Ditto	5 to 20 m.		
•••	. •••	•••			$\frac{1}{2}$ to 2 fl. 5.		
Digitalis.	More deeply reticulated than digitalis.	Essential oil, artanthic acid.	Styptic, astringent and like cubebs.	Bleeding.	30 to 60 grs.		
			Ditto	Gonorrhœa, vesical catarrh.	1 to 4 fl. 3.		
•••		Styrol, styracin, cinnamic acid, and resin.	Vide Balsamun and Balsamum In preparing Time	5 to 20 grs.			
Larch bark.	Astringent taste of elm bark.	Ulmin, tannic acid.	Demulcent, to- nic, astrin- gent.	Skin discases.	•••		
		w 9					

SUBSTANCE	Source			1	
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Decoctum Ulmi.	Ulmi cortex.			1 in 8.	
CUI	PULIFERÆ				
QUERCUS CORTEX (Oak bark).	Quereus ro- bur.	Europe.	Bark.	Drying.	Long pieces covered with a silvery-grey epidermis, cinnamon-coloured inside; taste astringent.
Decoctum Quer cus.	Quercus cortex.			1 in 16.	
GALLA (Galls).	Quercus infectoria.	Asia Minor.	Excrescence on twigs.		Globular, about the size of a marble, either olive-green and yellowish white inside, or greyish, the latter punctured to the centre with a small round hole.
* Unguentum Gallæ cum Opio.	Unguentum gallæ.	•••	***	1 3 ointment to 32 grs. opium.	•••
Tinctura Gallæ.	Galla.	•••	•••	1 in 8.	•••
Unguentum Gallæ.	Ditto			3 in 22 of ben- zonted lard.	•••
ACIDUM TANNICUM.	Galla.			Exposing powdered galls to a damp atmosphere, macerating with ether, evaporating partially and drying.	White or yellowish glistening seales, strong astringent taste, slightly acid reac ion; gives white precipitate with gelatine, bluishblack precipitate with ferric salts.
*Glycerinum Aci∂i Tannici.	Acidum tan- nicum.			Rubbing tanne acid (1) with glycerine (4), and dissolving by gentle heat.	

SUBSTANCES RESEMBLING 1F OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose				
			Demulcent, to- nic, astrin- gent.	Skin diseases.	2 to 4 fl. 3.				
Pale cinchona bark.	Taste astringent, not bitter.	Querci-tannic acid, quercin.	Astringent.	Sore throat, leu- corrhœa.	•••				
			Ditto	Ditto					
		Tannic acid, gallic acid.	Ditto						
•••	***	•••	Ditto	Piles.	•••				
•••	***	•••	Ditto	Hæmorrhage.	$\frac{1}{2}$ to 2 fl. 3.				
•••			Ditto	Piles.	•••				
Mineral matter.	Incineration.		Ditto	Hæmorrhage, diarrhæa, dys- entery.	2 to 10 grs.				
			Ditto	Ditto Sore throat.					

Substance	Source				1			
SUBSTANCE	Botanical	Geographical	Part used	PREPARATION	CHARACTERS			
Trochisci Acidi Tannici.	Acidum tan- nicum.		***	With sugar, tincture of tolu, gum arabic, mucilage, and water, $\frac{1}{2}$ gr. acid in each.				
Suppositoria Acidi Taunici.	Ditto	•••		Tannic acid (18), beuzoated lard (22), white wax (5), oil of theobroma (45), 3 grs. acid in each.				
*Suppositoria Acidi Tannici cum Sapone.		•••		Tannic acid (18), glycerine of starch (25), curd soap(50), and starch.				
ACIDUM GALLICUM.	Galla.			Moistening galls with water and allowing to ferment, boil ing with water, straiuing, and crystallising, purifying by recrystallisation.	silky crystals, taste not astrin- gent like that of tannic acid; gives bluish-black precipitate with			
*Glycerinum Acidi Gallici.	Acidum gal- licum.			Rubbing gallic acid (1) with glycerinc (4), and dissolving by gentle heat.				
MORACEÆ.								
Figus (Fig).	Ficus carica.	Smyrna.	Fruit.		Compressed pearshaped fruits, containing pulp and brittle secds.			
Mori Succus (Mulberryjuice).	Morus nigra.	Britain.	Juice of fruit.		Deep red, faint odour, sweet slightly acid taste.			
Syrupus Mori.	Mori succus.			Juice (8), sugar (13), rectified spirit (1).				

Substances RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			Astringent.	Hæmorrhage, diarrhæa, dys- entery, sore throat.	•••
		•••	Ditto	Ditto	•••
			Ditto	Ditto	
Tannie acid.	Whiter, no astringent taste, and no precipitate with gelatine.		Ditto	Ditto	2 to 10 grs.
			Ditto	Ditto	
		Grape sugar, gum, substances not investigated.	Demulcent, nutritive, laxative.	In Confectio Sennæ.	Ad libitum.
		Sugar, acid, albu- minous matter.	Refrigerant.	Fevers, to colour mixtures.	•••
				To colour mix- tures.	1 fl. 3.

SUBSTANCE	Source										
COBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS						
CAI	CANNABINACEÆ.										
CANKABIS INDICA (Indian Hemp).	Cannabis sativa.	India.	Flowering tops of plants from which the resin has not been removed.	Drying.	In greenish bundles about 2 inches long, consisting of branches of tops with the re- mains of the flowers, some of the ripe fruits						
*Extractum Can- nabis Indicæ.	Cannabis indica.	•••		Maccrating powdered tops (1) in rectified spirit (5), and evaporating.							
**Tinctura, Cannabis Indicæ.	Extractum eannabis indicæ.		•••	Dissolving extract (1) in rectified spirit (20).							
LUPULUS (Hop).	Humulus Lupulus.	Britain.	Strobiles.	Drying.	Greenish-yellow eones consisting of membranous scales, fragrant odour, bitter taste; yield lu- puline by rub- bing.						
Extractum Lupuli.	Lupulus.		•••	Maceration in spirit, boiling in water, and evaporating at 140°.							
Infusum Lupuli.	Ditto		•••	1 in 20.	,						
Tinctura Lupuli.	Ditto			1 in 8.	•••						
CON	NIFERÆ.				Andrews of Administrative Name (etc.). A finite description						
TEREBIN- THINÆ OLEUM (Oil of Turpen- tine).	Pinus palus- tris. Pinus tæda. Pinus Pinas- ter.	America and France.	Oil from resinous exudation.	Distillation.	Colourless, limpid, inflammable liquid, peculiar pungent odour and taste.						

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose				
		Resin and volatile oil.	Soporific, ano- dyne, anti- spasmodic.	Neuralgia, spas- modic coughs and other dis- orders.					
l	EEDS & W	EST-RIDING							
MEI	ICO-CHIRURO	ICAL SOCIET	Y Ditto	Ditto	$\frac{1}{4}$ to 1 gr. or more.				
•••			Ditto	Ditto	5 to 20 m.				
		Lupuline, which contains lupulite and volatile oil, and tannic acid.	Tonic, stoma- chic, slightly narcotic.	Dyspepsia, adjuncts to medicines.	Of lupulin 5 to 10 grs.				
			Ditto	Ditto	5 to 15 grs.				
•••	•••	•••	Ditto	Ditto	1 to 2 fl. z.				
h 0 0			Ditto	Ditto	½ to 2 fl. 3.				
•••		•••	Externally rube- facient. Inter- nally in small doses stimu- lant, antispas- modic, astrin- gent, diurctic; in large doses purgative, an- thelmintic.	Hysteria, internal hæmorrhage, parasitic intestinal diseases, inflammations.	10 to 30 m.				

	Sou	RCE	1		1
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
* Unguentum Terebinthinæ,	Terebinthinge oleum.	•••	•••	Oil (14), resin (2), yellow was (7), prepared	
**Linimentum Terebinthinæ.	Ditto	•••	7.0	lard (7). Oil (16), camphor (1), soft soap (2).	•••
Linimentum Tere- binthinæ Aceti- cum.	Ditto	•••	•••	Equal parts of oil, acetic acid, and liniment of camphor,	
**Confectio Tere- binthinæ.	Ditto	•••	•••	Oil (1), liquorice root (1), ho- ncy (2).	•••
**Encma Terebinthinæ,	Ditto	•••	•••	Oil (1), mucilage of starch (15).	
RESINA (Resin).	Vide Terebint	hinæ Olcum.	Residue from distillation of the oil.		Yellowish, solid, semitransparent, faint odour and taste.
**Unguentum Resinæ.	Resina.	• • • •	Resin (2), yellow wax (1), simple	•••	•••
*Emplastrum Resinæ.	Ditto	•••	ointment(4). Resin (2), litharge (16), hard soap (1).		
Terebinthina Canadensis (Canada Balsam).	Abies balsamea.	Canada.	Resinous exudation.	Incision.	Pale straw yellow, tinged with green, honey-like consistence, becoming thicker by exposure, aromatic odour, slightly bitter taste.
LARICIS CORTEX (Larch Bark).	Larix euro- pæa.	Europe.	Bark.		Flat pieces, inner surface yellow and fibrous, outer surface reddish brown under a greyish epiderniis; faint odour of turpentine.

SUBSTANCES RESEMBLING IT OR ADUL-	How known	Composition	Action	Use	Dose
TERATIONS		***	That of the oil.	Those of the oil	•••
•••	•••	•••	1	externally.	
•••	***	•••	Ditto	Ditto	•••
		•••	Ditto	Ditto	•••
			Ditto	Those of the oil internally.	60 to 120 grs.
•••			Ditto	Ditto	***
Other resins.	Smell and taste.	It yields abietic and pimaric acids.	Local stimulant.	In making plasters.	•••
•••	·		Ditto	Indolent ulcers, blistered sur- faces.	•••
•••	•••	•••	Ditto	Rheumatism, cuts, &c.	•••
•••	•••	Volatile oil and resin.	Like other turpentines.	In making blistering paper and collodium flexile.	
Red cinchona bark and clm bark.	Very little smell or taste.	Tannin and la- rixinic acid.	Stimulant, astringent, and expectorant.	Intestinal hæ- morrhage, bronchitis.	

a.	Se	OURCE				
SUBSTANCE	Botanical	Geographica	PART USED	PREPARATION	CHARACTERS	
*Tinetura Laricis	Larieis cortex.	•••	•••	1 in 8.		
Thus America- NUM (Common Frankin- cense).	Pinus tæda. Pinus palus tris.	America.	Resinous exudation.		Pale yellow, opaque with odour of American tur- pentine.	
Pix Burgundica (Burgundy Pitch).		Europe.	Resinous exudation.		Dull reddish brown, opaque, taking form of contain- ing vessel, aro- matic odour and taste.	
Emplastrum Picis.	Pix burgun- dica.	•••		Pitch (26), frankincense (13), yellow wax (4½), resin (4½), ex. oil of nutmeg (1), olive oil (2), water (2).	•••	
PIX LIQUIDA (Tar).	Pinus silves- tris.	Northern Europe.	Wood of stems and roots.	Destructive distillation.	Reddish black, treacle-like, aro- matic odour, sharp taste.	
*Unguentum Picis Liquidæ.	Pix liquida.	•••	,	Tar (5), yellow wax (2).	***	
JUNIPERI OLEUM (Oil of Juniper).	Juniperus communis.	Northern Europe.	Unripe fruit.	Distillation.	Colourless or pale greenish yellow, aromatic odour and taste.	
Spiritus Juniperi.	Juniperi oleum.	** 1	•••	1 in 50.	•••	
SABINÆ CACU- MINA (Savin tops).	Juniperus Sa- bina.	Britain,	Young shoots.	Dried.	Dark green twigs enveloped in ap- pressed leaves, strong peculiar odour, disagree- able taste.	
Unguentum Sabinæ.	Sabinæ cacu- mina.			Bruised tops (8). yellow wax (3), prepared lard (16).		

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
•••			Stimulant, astringent, and expectorant.	Intestinal hæ- morrhage, bronchitis.	20 to 30 m.
Yellow wax.	By smell.	Resin and probably volatile oil.		To improve consistence and colour of Emplastrum Picis.	•••
Resin.	By opacity.	Resin and oil of turpentine.	Stimulant, rube-facient.	In plasters.	•••
•••	•••		Ditto	Rheumatic pains, bronchitis.	•••
		Pyroligneous acid and various other hydrocarbons.	Stimulant, alterative.	Skin diseases, bronchitis, phthisis.	20 m to 13 in pills, or water.
			Ditto	Skin diseases.	
•••			Stimulant, diu- retic.	Dropsies.	 ·
•••	***	•••	Ditto	Ditto	30 m to 1 fl. 5.
•••		Volatile oil.	Irritant, emme- nagogue	Blisters, uterine disorders.	
•••			Ditto	Ditto	

SUBSTANCE	Sou	RCE	_			
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
Tinctura Sabinæ.	Sabinæ cacu-	4 5 5	100	1 in 8.	***	
Oleum Sabinæ.	Ditto	•••		Distillation.	Colourless or pale yellow, odour and taste of the tops.	
	II. —ENDO GIBERACE					
ZINGIBER (Ginger).	Zingiber officinale.	East and West Indies,	Rhizome.		Knotty, 3 to 4 in. long, when unpeeled covered with a brown wrinkled epidermis; when peeled yellowish white, spicy odour, pungent taste.	
*Tinctura Zingi- beris.	Zingiber.	***	•••	1 in 8.	***	
*Tinctura Zingi- beris Fortior.	Ditto	•••		1 in 2.	•••	
**Syrupus Zingi- beris.	Tinctura zingiberis fortior.			Tincture 6 5 to syrup 19 5.	•••	
CURCUMA (Turmerie).	Curcuma longa.	Ceylon.	Rhizome.	•••	Two kinds, one round, other long, yellow outside, reddish yellow inside, aromatic taste and smell, tinges saliva yellow.	
Turmeric Tinc-	Turmeric.	•••	•••	1 in 6.	•••	
Turmeric Paper.	Turmeric tincture.			Steeping unsized paper in tincture and drying.		
CARDAMO- MUM (Cardamoms).	Elletaria Cardamomum.	Malabar.	Seeds.		In oblong three- sided, three- valved eapsules of agreyish-yel- low colour, seeds of a fragrant odour and taste.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
•••			Irritant, emme- nagogue.	Blisters, uterine disorders.	20 m to 1 fl. 3.
•••			Ditto	Ditto	1 to 5 m (suspended).
Turmeric.	Colour.	Volatile oil.	Stimulant, carminative, sialagogue.	Dyspepsia, adjunct to medicines, disorders of salivary organs.	10 to 20 grs.
•••	•••		Ditto	Ditto	15 m to 1 fl. 3.
	•••		Ditto	Ditto	5 to 20 m.
	•••		Ditto	Ditto	½ to 1 fl. 3.
Ginger, pellitory.	Colour of fracture.	Curcumin.	Stimulant.	Test. Turned deep brown by al- kalies, pinkish by boraeicacid.	
•••			•••	Ditto	
***			•••	Ditto	
	422				
Sabadilla.	Triangular shape.	Volatile oil and fixed oil.	Aromatic stimu- lant, stoma- chic, carmina- tive.	Adjunct to purgatives.	5 to 20 grs.
			1		

SUBSTANCE	Sor	URCE				
BUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS	
** Tinctura Cardamomi Co.	Cardamo- mum.			Maceration in proof spirit, cqual parts of cardamoms and caraway (1), raisins (8) cinnamon (2), colouring with cochineal.		
IRI	DACEÆ.					
Crocus (Saffron).	Crocus sativus.	Southern Europe.	Stigma and part of style.	Drying.	Thin, about 3 in. long, with tripartite stigma. Also in compressed cakes.	
Tinetura Croci.	Crocus.			1 in 20.		
SMI	ILACEÆ.					
SARSÆ RA- DIX (Jamaica Sarsa- parilla).	Smilax offi- cimilis,	Jamaica.	Root.	Drying.	Bundles 1 to 1½ feet long, consisting of rhizomes with spirally twisted roots, beset with reddishbrown rootlets, slight smell, earthy taste.	
Decoctum Sarsæ.	Sarsæ radix.		•••	1 in 8.	•••	
**Decoctum Sarsæ Co.	Ditto			Sarsaparilla 2½ oz., sassa- fras, guaiac- wood, liquor- ice, each ¼ oz., mezereon 60 grs., water 20 oz.		
*Extractum Sarsæ Liquidum.	Ditto		٠	Macerating in water, partially evaporating, and adding spirit.	Specific gravity 1.095.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How weems	Composition	ACTION	Use	Dose
	•••		Aromatic sti- mulant, stom- achic, carmin- ative.	Adjunct to purgatives, relieve flatulence.	½ to 2 fl. 3.
	Floating.	Crocin.	Slightly stimu- lant.	To colour mix- tures.	20 grs. up- wards.
			Ditto	Ditto	½ to 2 3.
Hemidesmus, Senega.	Bearded, not cracked transversely.	Parillin, volatile oil, and starch.	Alterative, to-	Syphilis, rheu- matism, gout, skin diseases.	
		LETTS & WESTRIDING	Ditto Ditto	Ditto ·Ditto	2 to 10 fl. z. Ditto
•••		, EE	Ditto.	Ditto	2 to 4 fl. 3.

Substance	Sou	RCE		PREPARATION		
OUBSTANCE	Botanical	Geographical			CHARACTERS	
LIL	JACEÆ.					
SCILLA (Squill).	Urginea scilla.	Southern Europe.	Bulb.	Drying.	Narrow curved strips, 1 to 2 in. long, of a dull yellow colour, bitter taste.	
*Tinetura Seillæ.	Scilla.	•••	•••	1 in 8.	•••	
Acetum Scillæ.	Ditto		•••	Squill (5), dilute acetic acid (40), proof spi- rit (3).		
Oxymel Scillæ.	Acetum scillæ.	•••	•••	Vinegar of squill (10), honey(16), evaporating.	Specifie gravity 1.32.	
**Syrupus Scillæ.	Ditto	•••	•••	Vinegar of squill (1), sugar (2).		
*Pilula Scillæ Co.	Scilla.		•••	Squill (5), ginger (4), ammoniae (4), hard soap (4), treacle (10).		
Pilula Ipeca- cuanhæ cum Scillå.	Vide Ipeca- cuanha.	•••				
ALOE BARBADENSIS (Barbadoes aloes).	Aloe vulgaris.	East and West Indies.	Juice of leaves.	Inspissation.	In gourds or boxes, dull yellowish brown, nauseous odourwhen brea- thed upon, bitter taste,	
*Extractum Aloes Barbadensis.	Aloe barba- densis.		•••	Exhausting with boiling water.	•••	
Pilula Aloes Bar- badensis.	Ditto			Barbadoes aloes (16), hard soap (8), oil of caraway (1), confection of roses (8).		

SUBSTANCE RESEMBLIN 1T OR ADUL TERATION	How known	Composition	Action	Use	Dosu
Tragacanth	Squill is softe and tougher.	Mucilage and bit terprinciple scil litin.	Expectorant, diuretic.	Bronchitis, dropsy.	1 to 3 grs.
			Ditto	Ditto	10 to 20 m.
•••	***	•••	Ditto	Ditto	15 to 40 m.
			Ditto	Ditto	½ to fl. 3.
***		•••	Ditto	Ditto	Ditto
			Ditto	Ditto	5 to 10 grs.
	•••		Ditto		Ditto
Guaiac, scam- mony, cate- chu.	Bitter taste.	Barbaloïn, volatile oil, resin.	Purgative, em- menagogue.	Dyspepsia, constipation.	2 to 6 grs.
			Ditto	Ditto	2 to 6 grs.
• • •	•••		Ditto	Ditto	5 to 10 grs.

SUBSTANCE	Sou	RCE			
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
**Pilula Aloes et Ferri.	AÎoe barba- densis.	•••	•••	Barbadoes aloes (4), sulphate of iron (3), compound powder of cinnamon (6), confection of roses (8).	•••
ALOE SOCO- TRINA (Socotrine aloes).	Uncertain.	Socotra.	Juice of leaves.	•	Reddish brown masses with re- sinous fracture, agreeable odcur, bitter taste. Seen by microscope during solution.
*Extractum Aloes Socotrinæ.	Aloe soco- trina.		•••	Like extract of Barbadoes aloes.	***
**Decoctum Aloes compositum.	Extractum aloes socotrinæ.	•••	 :	With myrrh, saffron, carbonate of potash, extract of liquorice, co. tincture of cardamoms and water 4 grs. extract to one ounce.	
*Tinctura Aloes.	Aloe soco- trina.	•••	•••	With extract of liquorice and spirit 1 in 40.	***
*Vinum Aloes.	Ditto			Socotrinæ aloes $\frac{1}{2}$ oz., cardamoms and ginger each 80 grs. in 2 pints of sherry.	•••
Pilula Aloes Soco- trinæ.	Ditto			Socotrinæ aloes (16), hard soap (8), vol. oil of nutmeg (1), confection of roses (8).	
**Pilula Aloes et Assafætidæ.		Vide Assa	fœtida.		
*Pilula Aloes et Myrrhæ.		Vide Myı	rha.		

	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Ном киоми	Composition	Action	Use	Dose
		•••		Purgative, emmenagogue.	Dyspepsia, constipation, and amenorrhœa.	5 to 10 grs.
	•••		Socaloïn, volatile oil and resin.	Ditto	Dyspepsia, constipation.	2 to 6 grs.
	•••			Ditto	Ditto	Ditto
				Ditto	Ditto	1 to 2 fl. 3.
				Ditto	Ditto	1 to 3 fl. 3.
		•••		Ditto	Ditto	1 to 2 fl. 3.
			•••	Ditto	Ditto	5 to 10 grs.
-		•••	•••	•••	•••	Ditto
-	•••	•••	***	•••	•••	Ditto

2	Soun	CE	1		
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Enema Aloes.	Aloe barba- sensis or Aloe soco- trina.			Aloes 40 grs., carbonate of potash 15 grs., mucilage of starch 10 fl. 3.	
ME	LANTHACE	Æ.			
VERATRI VIRIDIS RADIX (Green Hellebore root).	Veratrum viride.	North America.	Rhizome.		Conical truncated pieces, earthy black outside, light coloured within, taste bitter and acrid, causing numbness to the tongue, often cut into slices or quarters, or in compressed cakes.
Tinctura Veratri Viridis.	Veratri viridis radix.	•••	•••	1 in 8.	
Sabadilla (Cevadilla).	Asagræa officinalis.	Mexico.	Fruit.		Consists of three oblong light brown follicles, about ½ in long, and contains 1 to 3 seeds.
VERATRIA.	Sabadilla.			Exhausting with alcohol which is for the most part distilled off, pouring into cold water to precipitate albumen, filtering, and precipitating veratria by ammonia. Afterwards purified by hydrochloric acid and charcoal, and reprecipitated by ammonia.	Dirty white pow- der.

SUBSTANCES					
RESEMBLING 1T OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		•••	Purgative.	Constipation.	
Valerian, ser- pentary ar- nica.	Rootlets thicker.	A kind of veratria, and jervia.	Irritant, emetic, drastic purga- tive.	Externally skin diseases, internally vide Veratria.	1 to 3 grs.
				6	
•••	•••		Ditto	***	5 to 20 m.
		Veratria and sabadinilla.	Ditto	For extraction of veratria.	•••
Mineral matter.	Incineration.		Ditto	Neuralgia, fe- brile affections, rheumatism, gout.	tiously increased.

	a	So	Source			
_	SUBSTANCE	Botanical	Geographica	PART USED	PREPARATION	CHARACTERS
	Unguentum Vera- triæ.	Veratria.			Veratria 8 grs., lard 1 3, olive oil ½ 3.	
((COLCHICI CORMUS Colchicum Corm).	Colchicum au- tumnale.	Europe.	Corm.		Chestnut-like, bright brown out- side, white and firm inside. Taste bitter and acrid. It is often in thin slices.
*	Extractum Colchici.	Colchici cormus.	•••	***	Expressing juice and partially evaporating.	•••
	xtractum Colchici Aceticum.	Ditto	•••	•••	As in extract colchici with 3 of acetic acid to 56 of peeled corms.	
**	Vinum Colchici.	Ditto	•••	•••	Maceration 1 in 5 of sherry.	
	COLCHICI SEMEN Colchicum seed).	Colchicum au- tumnale.		Seeds.		About the size of white mustard, reddish brown outside, white inside, very hard, taste bitter and acrid.
**	Tinctura Col- chici Seminum.		•••	•••	1 in 8.	•••
	PAL	MACEÆ.				
	RECA (Areca nut).	ArecaCatechu.	East India.	Seeds.		Size and shape of horse-chestnut, rusty grey, veined inside like nutmeg.
	GRA	MINACEÆ.				
	RINA TRITICI //	Triticum vulgare.	Britain.	Seeds.	Grinding.	

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
			Irritant, emetic, drastic purga- tive.	Neuralgia.	
Slices may be mistaken for tragacanth or squill.	Texture and kidney-shaped outline.		Increases bile and urine, di- minishes ac- tion of heart.	Gout, rheumatism, dropsy, skin diseases.	2 to 8 grs.
		•••	Ditto	Ditto	$\frac{1}{2}$ to 2 grs.
•••	•••		Ditto	Ditto	Ditto
•••	•••	•••	Ditto	Ditto	10 to 30 m.
Black mustard.	Larger than mustard.	Colchicin.	Ditto	Ditto	
			Ditto	Ditto	10 to 30 m.
Nutmeg.	Want of smell.	Red tannic matter, oil and mucilage.	Astringent, anthelmintic.	Tape worm.	Astringent 15 to 30 grs. Anthelmintic ½ to ¾ 3.
***	•••	Starchand gluten.		In making pills and poultices.	

Substance	Son	JRCE	:		
DUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS
Mica Panis (Crumb of bread).	Farina Tritici.				
Amylum (Starch).	Ditto	•••		Kneading and washing.	
* Glycerinum Amyli.	Amylum.		•••	Rubbing with glycerine 1 in 8.	
*Mucilago Amyli.	Ditto	•••		Boiling 1 in 35 of water.	
HORDEUM DECORTICATUM (Pearl Barley).	Hordeum distichon.	Britain.	Seeds.		
*Decoctum Hordei.	Hordeum de- corticatum.	•••	•••	In boiling water 1 in 15.	•••
ERGOTA (Ergot).	Claviceps purpurea,fungus on Secale cereale.	Britain.	Sclerotium or fungus, .just before maturity.		Firm horny grains, $\frac{1}{3}$ in to 1 in long, brown colour and offensive odour; interior white or pinkish.
** Extractum Ergotæ liquidum.	Ergota.	•••		Removing oil by ether, di- gesting in wa- ter and adding spirit.	
*Tinctura Ergotæ.	Ditto	•••		1 in 4.	***
Infusum Ergotæ.	Ditto	•••	•••	1 in 40.	•••
SACCHARUM PURI- FICATUM (Refined sugar).	Saccharum of- ficinarum.	East and West Indies.	Juice of stem.	Expressing and evaporating.	
Syrupus.	Saccharum pu- rificatum.	•••	•••	Dissolving in water.	Specific gravity
THERIACA (Treacle).	Saccharum officinarum.		Residue from refining.		

		1		1	1
SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Usr	Dose
		•••		In making pills and poultices.	
	•••		Demulcent.	As a vehicle.	•••
			Ditto	Chilblains.	***
			Ditto	As a vehicle.	***
		Starch and gluten.	Ditto		
•••			Ditto	As a demulcent drink.	Ad libitum.
		Fixed oil, ergotine, and ecboline.	Contracts the smaller arteries and the uterus.	Hæmorrhage and uterine disor- ders.	20 to 30 grs.
•••			Ditto	Ditto	30 m to 1 fl. 3.
•••	•		Ditto	Ditto	10 m to 1fl. 3.
•••			Ditto	Ditto	1 to 2 fl. 3.
•••			Demulcent.	To flavour mix- tures.	Ad libitum.
•••			Ditto	Ditto	Ditto
•••			Demulcent and slightly laxative.		

a -	Son	URCE							
SUBSTANCE	Botanical	Geographical	PART USED	PREPARATION	CHARACTERS				
	CLASS III.—ACOTYLEDONES. FILICES.								
FILIX-MAS (Male Fern).	Aspidium Filix-mas.	Britain.	Rhizome with part of stalk and roots.	Drying.	Short, cylindrical, with a tuft of leaf-stalks and some rootlets attached, green- ish-brown, dis- agreeable odour and taste.				
Extractum Filicis liquidum.	Filix-mas.		*	With ether, 4 in 10.	•••				
LIC	HENES.								
CETRARIA (Iceland Moss).	Cetraria is- landica.	Iceland.	Whole plant.	•••	Smooth grey thal- lus with irregu- larly divided lobes, bitter taste.				
Decoctum Cetrariæ.	Cetraria.	489	1 in 20.	•••					
Lacmus (Litmus).	Various li- chens.	Principally Holland.		Macerating with an alkali and fermenting.	•••				
Tincture of Lit-	Lacmus.	***	***	1 in 10.	•••				
Blue Litmus Paper.	640	•••	***	Steeping in tinc- ture.					
Red Litmus Paper.		•••		Steeping in aci- dulated tinc- ture.	•••				

				1	1	1			
	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Usn	Dose			
			Fixed and volatile oils, filicic acid, and tannin.	Anthelmintic.	Tape worm.	60 to 180 grs.			
				Ditto	Ditto	30 m to 1 fl. 3.			
-									
			Lichenin and ce- trarin.	Demulcent, to-					
		•••		Ditto	•••	1 to 2 fl. 3.			
	•••			•••	Test.				
	•••	•••		•••	Ditto	•••			
				•••		•••			
_									

MATERIA MEDICA.

Substance	Son	JRCE				
DUBSTANCE	Zoological	Geographical	PART USED	PREPARATION	CHARACTERS	
	s MAMM RODENTIA.	ALIA.		'	·	
Castoreum (Castor).	Castor Fiber (Beaver).	•••	Follicles of prepuce.	Drying.		
Tinctura Castorei.	Castoreum.	•••	•••	1 in 20.		
RU	MINANTIA.					
Moschus (Musk).	Moschus moschiferus.		Follicles of prepuce.		Reddish-black soft grains with cha- racteristic odour.	
SEVUM PRÆPARA- TUM (Prepared suet).	Ovis Aries (Sheep).		Fat round kidney.			
LAC (Milk).	Bos Taurus (Cow).	•••		•••		
SACCHARUM LACTIS (Sugar of milk).	Lac.			Evaporating whey and crystallising.		
FEL BOVINUM PURIFICA- TUM (Purified ox-bile).	Bos Taurus.			Treating with spirit to precipitate mucus and partially evaporating.	Yellowish-green bitter liquid.	
PEPSINA (Pepsin).	Pig, sheep, or calf.		Mucous membrane of stomach.	Drying and pulverising.	Yellowish-brown powder, faint odour, saline tastc.	
Sapo Animalis (Curd soap).	Animal fat, consisting chiefly of stearin.				Dry light-grey, horny. Easily moulded when heated.	

ANIMAL KINGDOM.

_						
	SUBSTANCES RESEMBLING 1T OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose
		***	Volatile oil, castorin, and acids.	Stimulant, anti- spasmodic.	Hysteria, epi- lepsy.	5 to 10 grs.
	•••		•••	Ditto	Ditto	$\frac{1}{2}$ to 1 fl. 3.
	Spurious sacs filled with dried blood, &c.		Volatile oil, albu- menoid and fatty matters.	Ditto	Ditto	5 to 10 grs.
				Emollient.	In ointments, plasters, and poultices.	
		•••	Sugar, casein.	Nutritive.	•••	
	Acid tartrate of potash.	By taste.	.		As vehicle for administration of powerful drugs in pow-der.	
_			Glyco-cholate and tauro-cholate of sodium, colour- ing and fatty matter.	Laxative, stom- achic.	Dyspepsia.	5 to 10 grs.
				Stomachic.	Dyspepsia, asthma.	2 to 5 grs.
			;··		Pills, suppositories, and Lin. Pot. Iod c. Sapon.	

	Sou	RCE					
SUBSTANCE	Zoological	Geographical	PART USED	PREPARATION	CHARACTERS		
PAC	CHYDERMA	TA.		1			
A DEPS PRÆ- PARATUS (Prepared Lard).	Sus Scrofa.		Internal fat.	Washing, lique- fying and straining.			
ADEPS BENZOATUS (Benzoated lard).	Adeps preparatus.		Ditto	Mixing (1 oz.) with powdered benzoin (10 grs).	Not so apt to become rancid.		
CET	ACEA.						
CETACEUM (Spermaceti).	Physeter macrocephalus.	•••	•••	Separated from the oil by fil- tration.	White crystalline unctuous cakes.		
**Unguentum Ce- tacei.				Spermaceti (5), white wax (2), almond oil (20).			
Class	AVES.						
ALBUMEN OVI (White of egg).	Gallus Bank- iva.	•••		Drying carefully,			
Ovi Vitellus.	Ditto						
CLASS	CLASS PISCES.						
Isinglass.	Acipenser.	•••	Swimming bladder.	Drying.			

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	How known	Composition	Action	Use	Dose		
		Olein and stearin.	Emollient.	In poultices.			
		Ditto	Ditto	Ditto, and to ulcers and excoriations.			
Wax.	Softness.	Cetin.	Emollient.	•••	***		
•••			Ditto	Dressing, blisters, &c.	•••		
		Albumen.	Precipitates various metallic compounds.	Antidote, ex- ternally in combination with alum, as an astringent,	•••		
		Fixed oil and vitellin.	Nutritive.	Exhausted states of the system, also in spiri- tus vini gal- lici.			
		Gelatin.	Precipitates tan- nic acid yel- lowish-white.	Test.			
		0					

	Sou	TRCE					
SUBSTANCE	Zoological	Geographical	PART USED	PREPARATION	CHARACTERS		
OLEUM MOR- RHUÆ (Cod liver oil).	Gadus mor- rhua.		Fresh liver.	Boiling, exposure to sun, or slicing and draining.	Almost colourless, fishy odour and taste.		
CLASS INSECTA. HYMENOPTERA.							
Mer (Honey).	Apis melli- fica.		•••	•••	•••		
Mel Depuratum (Clarified honey).	Mel.	•••	•••	Heating and straining.			
* Oxymel.	Vide Acidum Aceticum.	•••	***	•••	•••		
CERA FLAVA (Yellow wax).	Apis melli-fica.	•••	Combs.	•••	Yellow lumps.		
CERA ALBA (White wax).	Ditto	***	Ditto	Bleaching.	White cakes.		
* Unguentum Simplex.	Cera alba.		•••	White wax (2), prepared lard (3), almond oil (3 fl.)			
HEI	MIPTERA.						
Coccus (Cochineal).	Coccus Cacti.	Mexico and Teneriffe.	•••		About two lines long, oval, convex on one side, colour reddishbrown or black.		
Tinctura Cocci.	Coccus.			1 in 8.			
COI	COLEOPTERA.						
CANTHARIS (Cantharides).	Cantharis vesicatoria.	Hungary, Russia, Sicily.			Beetles about 8 to 10 lines long, with green wing sheaths. Powder brown withsmall shining green specks.		

SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	HOW VNOWN	Composition	Action	Use	Dose	
Æther oils.	Gives purple colour with sulphuricacid			Phthisis, scro- fula, rheuma- tism, inflam- mations.	1 to 8 fl. 3.	
			,			
•••		Grape sugar.	Nutritive, slightly laxa- tive.	As a vehicle.		
***	•••	•••	Ditto	Ditto	•••	
•••	•••	•••	•••		•••	
•••	•••	Myricin, cerotic acid, cerolein.	Demulcent.	In preparation of ointments	•••	
Spermaceti.	Harder than spermaceti.	Ditto	Ditto	Ditto and suppositories.		
***			Ditto		• •••	
				•		
Kino.	By taste.	Carmin, fatty matter, and salts.	•••	To colour mix- tures.		
	•••			Ditto	30 m to 1½ fl. 3	
Kamola.	By the shining green fragments of elytra.	Cantharidine.	Rubefacient, irritant, diuretic.	Internal inflam- mations, ner- vous affec- tions, urinary disorders.	•••	

	Sou	RCE					
Substance	Zoological	Geographical	PART USED	PREPARATION	CHARACTERS		
*Charta Epispas- tica.	Cantharis.			Cantharides (4), white wax (16), sperma- ceti (6), olive oil (4), resin (13), Canada balsam (1), water (24).			
** Emplastrum Cantharidis.	Ditto		•••	Cantharides (24), yellow wax (15), prepared suct (15), ro- sin (6), prepa- red lard (12).	•••		
*Emplastrum Ca- lefaciens.	Ditto	•••	•••	Cantharides (1), expressed oil of nutmeg (1), yellow wax (1), resin (1), soap plaster (13), resin plaster (8), water (5).	•••		
* Unguentum Can- tharidis.	Ditto	***		Cantharidis (1), yellow wax (1), olive oil (6).			
** Liquor Epispas- tieus.	Ditto		•••	Macerating with acetic acid and percolating with ether, 2 in 5.	•••		
Tinctura Cantharidis.	•••		•••	1 in 80.			
CLAS	CLASS ANNELIDA.						
HIRUDO (the Leech).	Sanguisuga medicinalis (Speckled leech). Sanguisuga officinalis. (Green leech)	Southern Europe.			Dark green, 2 to 3 in. long. Speckled leech, distinguished by yellow belly spotted with black.		

	SUBSTANCES RESEMBLING IT OR ADUL- TERATIONS	Ном киоми	Composition	Action	Usu	Dose
				Rubefacient, irritant, diure- tic.	Internal inflammations.	
				Ditto	Ditto	
			•••	Ditto	Ditto	
	•••			Ditto	Ditto 🏅	•••
	•••			Ditto	Ditto	
				Ditto	Nervous and urinary disor- ders,	5 to 20 m.
100	•••			Draws blood.	In inflammations.	

ADDENDA.

Substance	Source	Preparation	Properties	Reactions
BROMUM (Bromine).	Bittern, i. e. sea water from which the salt has crystallized out.	bromine with	Dark brownish red liquid, disagreeable smell and taste.	Orange colour with starch.
PILULA PHOS- PHORI.	Phosphorus.	Rubbing (1) with balsam of Tolu (60) under water, and mixing with wax (30), \(\frac{1}{18}\) gr. phosp. in 5 grs.		

Impurities	Source of Impurity	Tests	Action	Use	Dose
Iodine.	Imperfect preparation.	With soda it gives a colour-less solution which gives no blue with a little more bromine and starch paste.	Irritant, anti- soptic.	Vide Potassium Bromide.	•••
		·		Vide Phosphorus.	5 grains.

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